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CUPRINS

EVALUATING LOCAL CONTENT POLICY OF INSURANCE OIL AND GAS RISK PORTFOLIO AS CAPACITY BUILDING STRATEGY FOR NIGERIA INSURANCE COMPANIES

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Abstract

Inability of local firms in Nigeria to compete globally informed the introduction of local content policy to enhance the capacity of local vendors, but this is more pronounced in manufacturing sector than service sector. This study therefore evaluates the relationship between local content policy of oil and gas risk portfolio as a strategy and capacity enhancement of the Nigeria insurance companies vis-à-vis premium growth, resource capacity, and competiveness. Annual reports of 13 insurance firms in Nigeria were used from 2008-2016, while 150 copies of questionnaire were distributed to CHI Plc, STACO Plc, and SOVEREIGN TRUST INSURANCE. Growth rate analysis and nonparametric correlations were employed in this study. It was found out that local content policy has improved oil and gas premium income in the insurance companies in Nigeria. It was also established in this study that the policy has enhanced the resource capacity and competitiveness of the sector.

Key word: *Local Content Policy, oil and gas portfolio, Insurance firms, Resource capacity, competitiveness.*

1.1. Introduction

Insurance sector plays very important roles in ensuring that the economy of a nation is in a healthy shape through risk management. But insurance businesses are more encouraging in the advanced countries than the developing countries owing to lack of resource capability and proper orientation about the usefulness of insurance services. Chilekezi (2017) avows that the performance of insurance sector in Nigeria is below expectation in terms of growth and development. Olayungbo (2015) asserts that insurance is fundamental to economic growth not only in the developed nations but also in the developing countries considering the positive and pivotal roles it plays in servicing individual, groups, government and non-financial sectors. Omoke (2011) argues that insurance has become one of the pillars of financial service sector that can improve investment by way of reducing uncertainty in the business sphere. The function of insurance in an economy goes beyond the conventional task of managing risk, but also serves as an instrument to mobilize domestic savings, and funds from policy holders to more profitable investment and economic opportunities (Allen & Santomero, 1998; Skipper, 1987). Therefore, the need to have institutional policy that can enhance the capacity of insurance sector cannot be overemphasized bearing in mind its roles in contributing reasonably to the Gross Domestic Product of a nation (GDP) and the allocation of risks locally and globally

The wide gap between developed and developing countries in terms of technology advancement, technical knowhow, and innovation actually limits the capacity of indigenous firms to compete effectively with foreign counterparts. In attempt to salvage this situation since globalization has made business economy a global village, certain policies are now considered especially in Sub-Saharan Africa and Nigeria in particular as a giant of Africa that is endowed with different natural resources. Brown and Stephen (2017) opine that Nigeria is gifted with numerous mineral and natural resources (over 34 different natural endowments) starting from industrial materials, marbles, iron ore, bitumen, lead, limestone, coal, zinc among others across the country let alone crude oil that has become a major source of

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revenue. Most of these natural resources are in huge commercial quantities in Nigeria with the challenges of having financial capacity and technical capability to exploit and service them with the local vendors, thereby giving opportunities to foreign experts to repatriate the profits of their businesses that are in the country. As cited in Ihua, Ajayi and Eloji (2009), Business Day (2008) reveals an estimated $8 billion spent on servicing oil and gas industry operations, and it is estimated to arrive at $15 billion within the next few year, but a very minute fraction of the accruable profit is domiciled in Nigeria, while the rest is being repatriated abroad because nearly all the equipment are manufactured outside the country, and the service contracts are awarded to firms in overseas.

It was in response to this condition that the government of Nigeria drafted local content policy in ensuring that certain percentage of contracts is given to local operators across all the sectors in the country particularly in the areas where they do not possess equal capacity with the foreign investors regardless of the owners of the business (either owned by foreigners or local investors). Local content policy is a scheme considered by the Nigeria government to build the capacity of home-grown organizations and to offer more opportunities for local involvement in sectors whereby foreign participation is predominantly high (Adedeji, Sidique, Rahman & Law, 2016; Stephen, 2011). Consequently, the policy is expected to enhance backward linkages in the areas of procuring and utilizing locally produced inputs materials, thereby generating more job opportunities for local vendors (Adedeji *et al.*, 2016; Ariweriokuma, 2009; Esteves, Coyne & Moreno, 2013; Ihua, Olabowale, Eloji & Ajayi, 2011).

Given the fact that local content policy has gained momentum in the recent literature especially in manufacturing sectors, and majorly in oil and gas as high technology based industry; little is known about how the policy has affected the operations of financial institutions particularly insurance firms in Nigeria. Since insurance activities play important functions with other sectors of economy, there is a need to examine how government policy affects the operations of insurance. Hadhek (2014) infers that insurance business in a modern economy is essentially important; therefore, it deserves attention to empirically understand how it interacts with environment and other sectors of the economy.

1.2. Statement of the Problems

It is evidenced in the literature that Nigerian insurance industry has improved with positive signs; the country has the capacity through effective socio-economic policy to make the sector more inspiring and competitive. However, the industry is still facing some challenges from low penetration level and implementation of insurance policy obligatory, lack of consumer trust, and inadequate professionals that are skillful in this space (PWC, 2015). Insurance industry contributes actively to the stability and efficient diversification of risks, but it is unfortunate and dishearten that the opportunities in this sector of economy have not been copiously tapped in Nigeria (Meridian Securities, 2014). The participatory contribution of insurance to the national income in Nigeria is relatively minimal given the fact that there is high economic potential which has been left unexploited (Meridian Securities, 2014).

Nigeria has been making good policies, but ability to ensure compliance and effective implementation has been recognized as a major challenge. Most government policies in Nigeria have not been able to accomplish the expected objectives either because the implementation is lopsided or there is a systemic failure that could thwart the policy (Obodo, 2016). Formulating policy is not an issue in Nigeria, and this has been argued for long by experts and scholars that previous governments have not been ineffective in making policies, programs and initiatives, but poor implementation and translation of policies into viable results for the purpose they were being created (Ejere, 2011). For this reason, this study is considered necessary to examine how local content policy has affected the Nigeria insurance

industry vis-à-vis oil and gas compliance in terms of risk retention capacity to enhance the financial capacity of the operators.

1.3. Hypotheses

H_{01}: Local content policy cannot deliver significant growth in premium incomegenerated by oil and gas risk portfolio of insurance firms in Nigeria.

H_{02}: Oil and gas insurance risk portfolio does not improve the resource capacity of Insurance companies in   Nigeria as a result of local content policy.

H_{03}: Local content policy does not have a significant relationship with the competitiveness of insurance sector in Nigeria.

2. Literature Review

2.1. Institutional Theory in Policy Making

Scott (2005) argues that the origin of institutional theory could be traced to the shaping years of social sciences which incorporated the innovative approaches of scholars like Marx and Weber, Cooley and Mead, Veblen and Commons among others to examine systems from micro interpersonal relations to macro global structures. Institutional theory advances that organizations are surrounded with rules, policies, and requirements to which they are expected to conform for them to gain support and legitimacy of the environment (Kondra & Hinnings; Scott and Meyer, 1983). Institutional theory is a form of institution's influence over policy and action which can be constraining; superimposing situations of possibility for access and influence while restraining some actions and facilitate others (Armenta & Ramsey, 2009).

Meyer and Rowan (1977) opine that it is not strategic enough for firms to consider their structures from the area of task-performing functions, but aligning the structures with the institutional context (policies, professions, programs etc), thereby gaining legitimacy, resources, stability, and survival of the firm. Therefore, in the context of local content policy in Nigeria, organizations especially large companies and multinationals in particular are constrained to give certain percentage of their contracts to local vendors to improve their capacity. The local content policy in Nigeria was introduced in 2000s with the aim of transforming the economy of Nigeria through the development of home-grown capacity and indigenous capabilities across all sectors in areas of manpower development, facilities and infrastructure to guarantee active involvement of local firms (Ihua, Olabowale, Eloji & Ajayi, 2011). Local content policy constrains business corporations to take insurance policy with local insurance firms in Nigeria which ordinarily foreign companies would prefer foreign insurance companies to indigenous firms based on capability and service delivery.

2.2. Overview of Insurance System in Nigeria

It was established that some traditional, social and mutual models had been in existence earlier than the overture of conventional insurance in Nigeria which evolved through the African shared cultures such as extended family system, age grades, communal labour, and clans (Obasi, 2010; Ujunwa, 2011). Typically, this came as a form of primordial social insurance through cash donations, labour communally organized to assist one another, the entire community, and sometimes those that suffered any form of catastrophe or having health challenges (Usman, 2009). In the same vein, insurance in Nigeria is neither new nor introduced by any Whiteman but a prehistoric form of insurance (Chilekezi, 2017; Irukwu, 1989). In the opinion of Ogunlana (1995), the modern insurance practice in Nigeria could be traced to 1874 as an outcome of financial operations of the Bank of British West Africa, the predecessor of First Bank Nigeria Plc. According to Chilekezi (2017), most of the insurance scholars argued that insurance made a landmark in Nigeria in 1921 as a result of the establishment of a Lagos branch office of Royal Exchange Assurance UK. Ujunwa (2011)

also argues that conventional insurance in Nigeria originated from the business activities of European merchants in the West African coast, and this was motivated by two factors.

The first factor was the expansion of cash crop production for exports coupled with the upward trend in economic activities in the 1890s; while the second factor was the British aspiration to safeguard its interest and properties in the colony of West Coast Africa (Ujunwa, 2011). Agriculture was the major source of income for Nigeria at that time, and the major challenge confronting the European merchants then was the risk involved in transporting cash crops across to Europe according to Ujunwa (2011). Accordingly, this contributed immensely to the marine insurance domination in Nigeria within 1918 when the first insurance agency came into force in the country (Uche & Chikeleze, 2001), and 1942 when marine insurance dominance was slightly diluted (CBN, 2011). Trade and commerce experienced increase in Nigeria and this influenced shipping business activities, insurance and banking thereby making it attractive for foreign investors to think about handling a number of of their risks locally (Uche & Chikeleze 2001). The industry at present has 52 active players, two reinsurance companies, and estimated 500 insurance brokers, about 50 loss adjusters and 50 risk surveyors (Chilekezi, 2017). Other service providers in this industry are: marine superintendents, marine surveyors, claims assistants, claim superintendents, lawyers, doctors among others (Chilekezi, 2017).

The milestone achieved in this industry also is the establishment of the National Insurance Commission (NAICOM) charged with the responsibility of the administration and enforcement of provision of the insurance Act 2003 (Ojo, 2012). Some of the roles of NAICOM cover criteria and standard for registration, rates, investment funding, policy provision, valuation of assets and liabilities, qualifications of sale representatives, and expenses limitations (Ojo, 2012). The Nigerian insurance industry currently has witnessed immense growth and development, but its impact in the Nigerian economy is below expectation, and most especially in the areas of insurance density and insurance penetration (Chilekezi, 2017). However, with different reform processes ongoing in the Nigeria insurance industry, an enormous potential is abound for more profitable insurance businesses in the nation in terms of financial capacity to underwrite big and foreign insurance risks (Uddin *et al*., 2018).

2.3. Oil and Gas Risk Portfolio in the Nigeria Insurance Firms.
The oil and gas industry has sustained the economy of Nigeria since late 1950s (Ihua, 2010), and the industry has been generally recognized by literatures as the nation's conduit pipe for economic growth and development (Agusto, 2002; Atakpu, 2007). However, in terms of servicing this lucrative industry, the accruable profit available for local oil servicing firms is not proportionate to their counterparts operating foreign servicing firms in Nigeria as this could have negative effects on the development of Nigeria's industrial base (Ihua, 2010). The major reason for this is accredited to the issue of low local risk retention capacity whereby services contracts are being awarded to foreign companies mainly because indigenous firms have been allegedly characterized with deficiency in the required skills, technical expertise, manpower and production capacity to compete favorably with the foreign coounterparts (Aneke, 2002; Ariweriokuma, 2009).

In the opinion of Heun, Quale, Karlsen, Kragha and Osahon (2003), the causes of low local risk retention capacity in Nigeria comprise of inadequate technological capacity; funding issue from financial sector; poor infrastructure, strategic partnering deficiency between local contractors and technically skilled foreign firms; and policy ineffectiveness. Ihua (2010) opines that to address these issues, local content policy tagged 'Nigeria Content' was introduced in early 2000 by the federal government of Nigeria particularly in the oil and gas industry. The draft of National Content Development initially submitted as outlined by the

Nigerian National Petroleum Corporation (NNPC) in 2003 gave birth to Nigerian content policy in 2006 under the administration of President Obasanjo (Okafor & Aniche, 2014).

The policy was made primarily to ensure that indigenous vendors participate actively in the industry (Lawal, 2006; MacPeople, 2002; Nwapa, 2007). NNPC issued 23 content policy domiciliation guidelines in the industry with the aim of achieving 45% and 70% local content by 2006 and 2010 in stated projects (Okafor & Aniche, 2014). As regards the financial institution (Banking and Insurance) in Nigeria, the government increased the domiciliation of funds in indigenous banks, while the oil and gas firms were instructed to ensure that at least 45 percent of their insurance policies are placed with local insurance firms (Stephen, 2011). According to sub-section 2.5 of the insurance Act 2003 and the National Insurance Commission 1997, "No insurance risk in the Nigerian oil and gas industry shall be placed oversea without the written approval of the Commission which shall ensure that Nigerian Local Capacity has been fully exhausted."

2.4. The Concept of Local content policy as Capacity Building in Oil and Non-oil sectors

Local content policy is a bill passed to Law primarily to extend the business opportunities abound in oil and gas sector to other sectors of economy (Nwakoro, 2011), and this could make it possible to take full advantage of foreign direct investment (FDI) and as well creating more wealth (Nwapi, 2015). Consequently, the Nigerian Content Division (NCD) was formed in the NNPC to effectively monitor and enforce compliance (Okafor & Aniche, 2014). According to these authors, NDC has three departments (capacity building, planning, and monitoring departments), and they are cooperatively charged with some responsibilities which include: (1) study best practices and advise NNPC management on Nigerian content, (2) get relevant data from industry and drafting of plans for new opportunities, (3) map out strategies for skill and capacity building, and supplier enhancement, (4) foster and monitor Nigerian content implementation compliance, and (5) coordinate and manage sectoral working committees.

However, the Nigerian Content Consultative Forum (NCCF) was constituted to support the activities of Nigerian Content Division, NNPC in agreement with major industry stakeholders such as oil and gas multinationals and other key operators (Okafor & Aniche, 2014). Also, NCCF has 8 sectoral working committees overseeing the fabrication, petroleum engineering and sub-surface, shipping and logistics, manufacturing, banking and insurance, and other committees of sub-sector (Okafor & Aniche, 2014). Therefore, this makes local content policy an all-encompassing scheme to encourage growth in the non-oil sectors through oil sector investment, as this can improve oil industry when non-oil enterprises supply goods and services to oil firms and in returns enhancing the capacity of non-oil sectors towards economic sustainability in Nigeria (Ovadia, 2014).

2.5. The Study Conceptual Model

Local content policy has not only gained consideration in manufacturing industry, but also in service sector to assist in building the capacity of local service providers such as insurance, banking, local contractors among others. The figure 2.1 illustrates the intervention of local content policy with oil and gas portfolio in driving risk premium for local insurance firms in Nigeria.

Fig 1: Relationship among local content policy, oil & gas portfolio in Nigeria insurance firms
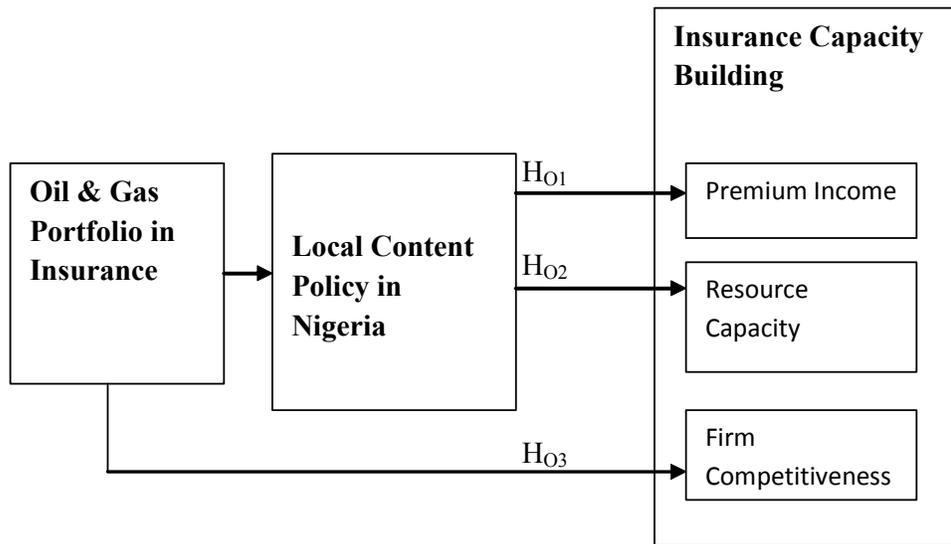
I. Local Content Policy and Insurance Premium Income

Insurance contracts are generally regarded as transactions that take place whereby the insured exchange uncertain 'prospects' for certain 'prospects' at a cost which is the premium paid by the insured to the insurer (Beard, Pentikainen & Pesonen, 1972). Insurance premium is the consideration for covering of the risks of the insured, and it comes in form of a price. It is also a financial consideration that a policyholder is expected to pay for the benefits that the insurer has agreed to offer on the happening of an event as scheduled. It is established in the Nigerian local content policy that for any insurance risk of oil and gas firm to be placed overseas, there should be an approval from the designated commission so as to protect the interest of local insurance firms by making sure that their capacity has been fully utilized before considering foreign insurance firms. Therefore, all oil and gas firms are expected to follow this instruction in accordance with the provisions of the insurance Act 2003 and the National Insurance Commission Act 1997 under the 2.5 general requirements, and this could improve insurance premium in Nigeria.

II. Local Content Policy and Resource Capacity in Insurance Firms

Capacity building is a major concern in the 21st century business activities considering the level at which technology innovation has made global economy a mere village. Therefore, there is a need for capacity to be improved continuously. The perspective of capacity development is that firm's performance can be shaped by forces in the enabling environment external to the organization (laws and regulations, attitudes and values); while factors internal to the organization such as skills, systems, leadership, relationships are elements of organizational capacity that can be leveraged upon to manage the external environment (Bolger, 2000). In the opinion of Otoo, Agapitova, Gold and Fisher (2009), capacity building has transformed the business of international assistance with the paradigm shift to speed up development by tapping the available potential within the country rather than resource transfer from abroad. According to sub-section 3.1 of the insurance Act 2003 and the National Insurance Commission 1997, "Local Capacity" shall be defined as the total capacity of all Nigeria registered insurers and reinsurers which shall be fully consummated and exhausted completely before any application for approval to reinsure any Nigerian Oil & Gas risks overseas.

III. Local Content Policy and Firm Competitiveness

Arslan and Tathdil (2012) argue that the concept of competition power should not be restricted to country's productivity level, but should also be extended to the firm and the industry level competition power. This is also supported by Kotler (2000) that competitive advantage is an organization's ability to achieve results in one or more ways than competitors. Consequently, the insurance business has become a basic component of every country financial system, the major reason why many reforms initiated in the Nigerian insurance industry are indicators to reinvigorate and enhance the competitiveness of the industry (Uddin, Oserei, Oladipo, & Ajayi, 2018). Local content policy as stated by Stephen (2011) has made it possible for insurance firms as a matter of instruction to enjoy 45% oil and gas risk policies, and to improve the competitiveness of the sector in Nigeria.

3. Research Methods

This study was carried out to empirically examine the contribution of oil and gas risk premium in the Nigeria Insurance companies in respect to local content policy. Therefore, both secondary and primary source of data were employed to gather relevant information using the available annual financials of 13 insurance companies in Nigeria (NEM Plc, PRESTIGE Plc, LINKAGE Plc, NSIA Plc, LAW UNION and ROCK Plc, CHI Plc, STACO Plc, SOVEREIGN TRUST Plc, CORNERSTONE INSURANCE Plc, MUTUAL BENEFIT ASSURANCE Plc, REGENCY ALLIANCE Plc, AIICO Plc, and SUNU ASSURANCE Plc) from 2008 to 2016 to analyze the study hypothesis one. However, purposive method was used to select CHI Plc, STACO Plc, and SOVEREIGN TRUST Plc for the purpose of questionnaire. The justification for selecting these insurance firms for the source of primary data was that they have consistent data that were used for the secondary analysis (see table 4.1) compared with other insurance firms operating in Nigeria. Again, the staff members of these three companies were disposed to respond to the questionnaire. Consequently, cluster and convenience methods were employed to distribute 50 copies of questionnaire to the staff of each of these insurance companies (CHI Plc, STACO Plc, and SOVEREIGN TRUST Plc) in Lagos making the total of 150 copies of questionnaire, while cross sectional survey was adopted to get the responses of the respondents. Out of the 150 copies of questionnaire distributed, 132 copies were filled in and returned by the respondents representing 88% response rate. Correlation method was adopted to establish the significant relationship between the variables as stated in the hypotheses two and three. Branches of these insurance companies in Lagos were considered suitable for this study being a commercial hub in the country where most of the companies situated their corporate head offices.

3.1. Analyses and Testing of Hypotheses

Table 1: Oil and Gas Gross Written Premium in Nigeria from 2008-2016

	2008	2009	2010	2011	2012	2013	2014	2015	2016
	N	N	N	N	N	N	N	N	N
NEM PLC	NIL	4911298	6386277	8381196	974240000	1524120000	1327231000	1304387000	1018253000
PRESTIGE PLC	NIL	NIL	NIL	84705	204590000	214710	226324	191303	139454
LINKAGE PLC	NIL	196467095	275554783	369935000	639377902	903369604	694261000	1488100000	1461445000
NSIA PLC	NIL	NIL	NIL	NIL	NIL	230503000	371944000	446059000	512360000
LAW UNION AND ROCK PLC	NIL	NIL	94110	141333	440938	567384	998541	713924	788717
CHI PLC	126527823	261278793	539353404	474717820	623709447	962179679	1059965142	1307037124	885207340
STACO PLC	16191000	200533000	273143000	565304000	958453000	968055000	678895000	612508000	612508000
SOVEREING TRUST PLC	NIL	720548749	980074000	2083066000	2863274000	4420222000	2724993000	3169931000	2235192000
CORNERSTONE INSURANCE PLC	NIL	NIL	NIL	NIL	NIL	1209845	718365	1075338000	1368623000
MUTUAL BENEFIT ASSURANCE PLC	NIL	NIL	NIL	NIL	NIL	NIL	7045435000	6343753000	1440545000

	2008	2009	2010	2011	2012	2013	2014	2015	2016
	N	N	N	N	N	N	N		N
REGENCY ALLIANCE PLC	273024	282182	315870	480439	734140	1208333	712697	1002465000	913198000
AIICO PLC	NIL	NIL	NIL	2133627	2618445409	2290906837	1945481810	1617199970	1081492236
SUNU ASSURANCE PLC	NIL	NIL	59266856	42432978	330700262	845982766	724360583	619341931	509580279
TOTAL	142991847	1384021117	2134188300	3546677098	9213965098	12148539158	16575222462	18987025252	12039332026
GROWTH RATE %	0.00	867.9	54.20	66.18	159.79	31.44	36.44	14.55	-36.59

Figure 2. Growth Analysis
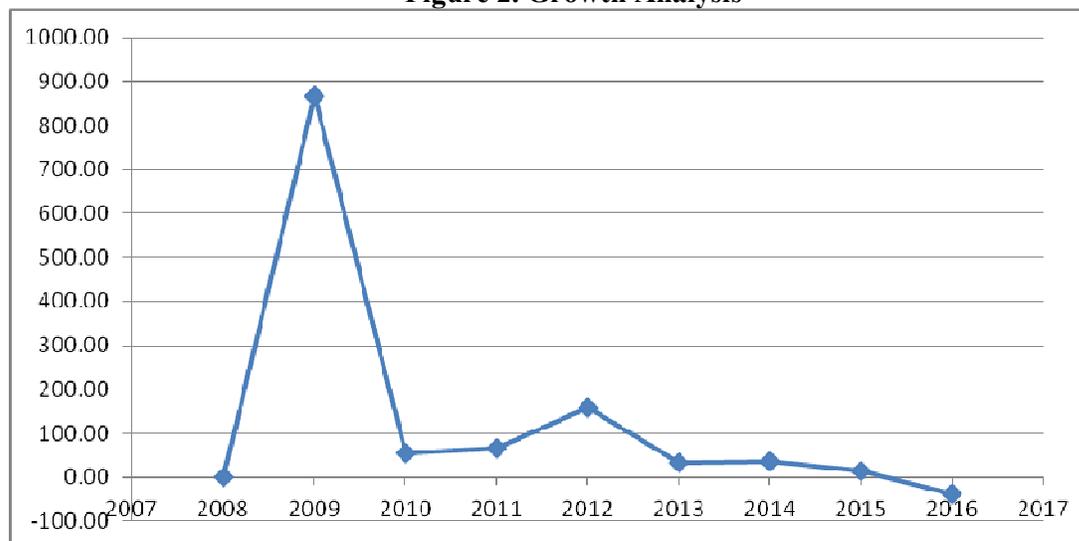
The Table 4.2 showed the growth rate of oil and gas risk premium in insurance companies in Nigeria as extracted from the Table 4.1. The growth rate between 2008 and 2009 showed that there was a huge gap owing to lack of data in the 2008. However, oil and gas risk premium in the Nigeria insurance industry increased from 54.20% to 66.18% between 2010 and 2011; copiously increased from 66.18% to 159.79% within 2011 and 2012, but dropped drastically to 31.85% between 2012 and 2013. It was revealed in the Table 4.2 also that between 2013 and 2014 oil and gas risk premium in insurance increased from 31.85% to 36.44% but started decreasing in the 2015 to 14.55% till 2016 when the rate dropped to negative (-36.59%). These findings showed that local content policy can deliver growth in the risk premium income generated through oil and gas portfolio in insurance, but factor like dwindling global oil prices could contribute to the decrease in the premium income particularly in the year 2015 and 2016. Similarly, other factors like deliberate underwriting decision by insurance firms not to underwrite oil and gas business more than agreed percentage with their reinsures, and competition in the Nigeria insurance could contribute also to the drastic reduction in risk premium income of insurance firms.

Table 2: Cronbach Alpah and Correlation analysis for local content policy, resource capacity, and competitiveness

(5items)	Cronbach's Alpha	Sig. (2-tailed)	N	Local Content Policy	Resource Capacity	Competitiveness
Local Content Policy	.706	.000	132	1		
Resource Capacity	.770	.000	132	.461**	1	
Competitiveness	.751	.000	132	.553**	.614**	1

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

Source: Researchers' field survey (2018)

The Table 4.3 shows the cronbach alpha (.706; .770; .751) for local content policy, resource capacity, and competitiveness respectively, and this indicates that they are sufficient to measure the variables as advanced by Burns and Burns (2008) that a cronbach alpha of 0.8 or above is considerably high while acceptability limit is 0.7 and above.

The Table 4.3 also illustrates the relationship between local content policy and resource capacity; local content policy and competeveness of insurance companies in Nigeria with special reference to Chi, Staco, and Sovereign Trust. Since correlation significant value is 0.000 which is between the ranges of 0.00-.001, it implies that there is a significant relationship among the variables. In addition, a statistically high positive relationship exists between local content policy and resource capacity (r=.461, p<0.01); local content policy and competitiveness of insurance companies in Nigeria (r=.553, p<0.01). Similarly, there is a high statistical positive relationship between resource capacity and firm's competitiveness. Therefore, the results of the Table 4.3 showed that both hypotheses two and three should be rejected showing that local content policy in Nigeria actually has significant relationship with the resource capacity and competitiveness of insurance firms in Nigeria. Similarly, there is a significant relationship between local content policy and the competeveness of insurance firm in the country.

4. Discussion of Findings and Conclusions

This study evaluates oil and gas risk premium income portfolio in insurance companies in compliant with the local content policy in Nigeria. The study is structured to empirically examine if local content policy is well implemented in the insurance industry, and if it actually achieves the purpose with which it was initiated by helping the capacity of local firms and vendors. Virtually all the International Oil Companies (IOCs) operating in Nigeria preferred having huge percentage of their insurance policy domiciled outside Nigeria prior the local content policy probably for fear of trust or low capacity. It is therefore found out in this study that the implementation of local content policy has improved oil and gas risk premium income in the Nigeria insurance companies though not consistent owing to the instability in global oil prices.

Basically, with the implementation of local content policy, domestic insurance firms have been able to acquire technical skills in oil and gas underwriting thereby making them more competitive. The findings also established that local competition has been intensified in the Nigeria insurance industry because the policy contributes immensely in enhancing the resource capacity of the players. Also, it was established in this study that service quality has experienced improvement because of the enhancement in the human capacity purposely to manage more sophisticated transactions of international oil companies (OICs) operating in Nigeria. Based on these findings, it is concluded in this study that oil and gas risk premium income has improved the capacity of insurance companies in Nigeria through local content policy, though much still need to be done in terms of total compliance from the operators.

5. Recommendations

1. There is need for the Nigeria insurance firms to embrace latest technologies that can transform the industry since international oil companies are meeting up with their insurance risk premium obligations as a result of local content policy.

2. The designated agencies or commissions that are saddled with the responsibilities of monitoring the policies should be properly equipped to enforce the compliance to avoid breach of contracts between the local insurance firms and the international Oil companies.

3. Local insurance firms should comply with the policy in terms of meeting the basic requirements that can ensure maximum utilization of the opportunities.

4. Employees in the Nigeria insurance companies should be given constant modern training regarding high-tech transactions and relationship management for them to have adequate capacity that will enable them to manage foreign risk portfolio under their supervision.

5. The policy should be given more attention and monitored since it has been able to enhance the capacity of local insurance firms in Nigeria.

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MONEY MARKET EFFICIENCY AND THE DEVELOPMENT OF NIGERIAN FINANCIAL SYSTEM

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Abstract

This study empirically assesses the effects of money market efficiency on the development of Nigerian Financial system, using annual data collated from 1991 - 2017. The study utilizes money market variables (Interest Rate Spread, Interest Expenses, Loan/loss Provisions) as measures of money market efficiency while real gross domestic product (RGDP) was employed as the control variable. Financial deepening (M2/GDP) was used as proxy for financial system development with the adoption of multivariate OLS analysis for the estimation process, co-integration analysis for long-run relationship and the associated error correction model (ECM) to determine the short-run impact of the variables. The Granger causality test is used to determine the direction of causality among the variables. The study found that there is a significant positive relationship between money market efficiency with reference to interest expense and financial system development both in the short-run and long-run respectively; an indication that high interest expenses remain a major challenge in achieving financial system development in Nigeria. However, we could not establish any significant relationship between financial systems development and other efficiency measures namely interest rate spread, and loan/loss provision. The study recommends that monetary authorities should monitor the activities of banks by ensuring that they are properly run in line with prudential regulations to improve efficiency via reduction in interest expenses, and costs of loan/loss provision. Also, they should build capacities in the real sector of the economy to spur up the real domestic product which is a necessary ingredient for the development of Nigeria's financial system.

Keywords: *Money Market Efficiency, Money Market, Financial System, Co-integration*

Introduction

The role of efficient money market in the development of the financial system cannot be overemphasized. Money market is essential in building a sustainable financial system and an open vibrant economic system. Countries with well developed financial institutions tend to experience accelerated growth. Financial system is a complex and well integrated set of financial institutions, markets, instruments and services which facilitate the transfer and allocation of funds efficiently and effectively within the economy. The financial systems of most developing countries are characterized by co-existence and co-operation between the formal and informal financial sectors. Similar trend is seen in Nigeria financial system (Babajide, 2011). The functions of a financial system include mobilizing and allocating savings, monitoring corporate performance, providing payment and settlement systems, optimal allocation of risk bearing and reduction, disseminating price-related information, offering portfolio adjustment facilities, lowering costs of transaction, promoting the process of deepening and broadening the financial system. It is important to state here that for proper functioning of the system legal and financial framework should be well regulated. According to the Central Bank of Nigeria (1993), the Nigerian financial system refers to a set of rules and regulations and the aggregation of financial arrangements, institutions, agents, that interplay with each other and the rest of the world to foster economic growth and

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development of a nation. The financial system fosters economic development through various institutional structures (Nzotta & Okereke, 2009). The financial system is very important such that if it is left weak, the economy suffers for it ultimately. The focus of this study is the money market which represents the short end of the financial system charged with the responsibility of providing short term investment having a maturity date of less than one year. Money market plays the intermediation role of making available short-term financial assets that are close substitutes for money in the market. This is done primarily by mobilizing domestic savings for productive investments as well as providing government and or her agencies with funds to facilitate developmental projects and the money market must function in this role efficiently in order to have optimal result for all the parties involved in transactions. This study seeks to appraise the impact of money market efficiency on the development of Nigerian Financial System. The main objective therefore is to ascertain the relationship between money market efficiency and development of Nigerian financial system. Specifically, the study evaluates the effect and direction of causality between money market efficiency indicators (interest expense, interest rate spread, loan/loss provision) and financial system development in Nigerian. The rest of this paper is structured as follows: the first three sections contain the literature review, the methodology and data presentation, analyses and discussion of findings. The last section is the conclusion and recommendations.

1. Literature Review and Theoretical Framework

According to Goldsmith (1969), financial system development is of prime importance because the financial superstructure, in the form of both primary and secondary securities, accelerates economic growth and improves economic performance. Financial system facilitates the movement of funds to the place in the economic system where the funds will yield the highest social return. Consequently, ensuring that funds are not available to inefficient funds users. In helping as a vehicle for economic development, the financial system tries to achieve the basic function of resource intermediation. Various institutional structures ensure that idle funds are allocated to entrepreneurs, businesses, households and governments, for investments and use in various projects and purposes, with a view to earning of returns. The financial system is a prime mover of economic growth and development. It achieves this through the intermediation process offered mainly by the money market, which entails providing a medium of exchange necessary for specialization and the mobilization of savings from surplus units to deficit units. Through this process, there is an enhanced productive activity and thus positively influences aggregate output and economic growth, needless to mention the job creation capacity which is part of the positive fruits of an efficient money market.

The Nigerian Financial System

A system is generally seen as comprising component parts or subsystems that work in harmony in order to achieve certain goals or objectives. Therefore, according to Nzotta & Okereke (2009), a financial system consists of different institutions, markets, instruments, and operators that interact within an economy to provide financial services such as resource mobilization and allocation, financial intermediation and facilitation of foreign exchange transactions.

The Nigerian financial sector can be classified into two categories namely;

1. The informal sector which comprises of the local money lenders, the thrifts and savings associations, and so on. It is poorly developed, limited in reach, and not integrated into the formal financial system, but plays a major role in the Nigerian financial system.

2. The formal financial system comprises of the capital and money market institutions and these comprise of the banks and non-banks financial institutions (Aderibigbe, 2004).

According to the CBN Annual Report and Statement of Account (2008), the Nigerian (formal) financial system consists of the Central Bank of Nigeria (CBN), the Nigerian Deposit insurance Corporation (NDIC), the Securities and Exchange Commission (SEC), the National

Insurance Commission (NAICOM), the National Pension Commission (NPC), Deposit Money Banks, Microfinance Banks, Finance Companies, Bureau-De-Change (BDC), Stock Exchange, Commodity Exchange, Primary Mortgage Institutions, Development Finance Institutions (such as Bank of Industry), Discount Houses and Insurance Companies and Registered Insurance Brokers. The focus of this paper is on the formal sector. The Deposit Money Banks (DMBs) accept deposits, provide loans and advances to customers, operate the payment and settlement mechanism and also create money through providing loans and advances. There has been special attention of the regulatory bodies (that is CBN and NDIC) on the activities of these banks since they have a great impact on the soundness and stability of the financial system which has to be sustained. There has also been rapid growth in terms of service delivery, size and number of institutions, which later declined from 89 in 2004 to 25 in 2006 and further reduction due to the consolidation of banks to the present 24 (including one non-interest bank). The money market was not in existence in Nigeria prior to the establishment of the Central Bank of Nigeria in 1958, although some forms of market for short-term funds did exist. Therefore, before the advent of commercial banking, there existed some elements of short-term lending and borrowing based on commercial paper. The market was an integral part of the London money market. It worked by moving funds from London to Nigeria during the harvesting season in order to finance the export of produce and at the end of the season, the funds were moved back to London, in other words there was all-season money-market activity. The establishment of the Nigerian money market saw the Central Bank of Nigeria harnessing those funds towards the country's economic growth. It is important at this juncture to state that the ultimate role of the money market is to facilitate the mobilization of funds from the surplus units (savers) to the deficit units (investors).The sweetener is interest income that makes the surplus units (savers) to transfer their purchasing power to the deficit units (investors).The efficiency with which resources flow from lenders to borrowers for the production of goods and services is a reflection of development of the financial system. To what extent the efficiency of the Nigerian money market impacts the development of the Nigerian financial system is the focus of this paper.

Hypotheses
The study tested the following hypotheses which are stated in a null form:
1. There is no significant relationship between money market efficiency indicators (interest expense, interest rate spread and loan/loss provision) and financial system development in Nigeria.
2. There is no causal relationship between money market efficiency indicators (interest expense, interest rate spread and loan/loss provision) and financial system development in Nigeria.

Methodology
The study covers the period of 26 years (1991 -2017). Data used are sourced from the Central Bank of Nigeria's statistical bulletin of relevant editions and Nigeria Deposit Insurance Corporation's Annual Reports and Accounts for the period under review. The multivariate regression analysis and granger causality test were used to analyze the data. Other tests like Johansen multivariate co- integration test and Augmented Dickey-Fuller (ADF) unit root tests were utilized in the study. The error correction mechanism (ECM) is employed to assess the short run effects while Johansen co-integrating estimation technique is employed in order to ascertain the long run effects of money market efficiency indicators on financial system development. The test for causality was carried out using the pair wise Granger causality test to know the direction of causality between money market efficiency and financial system development variables.

Model Specification

The objective of this study is to investigate relationship between money market efficiency indicators (interest expense, interest rate spread, and loan/loss provision) and financial system development in Nigeria. The dependent variable, Financial System Development (FINSD) denoted by M2/ RGDP (financial deepening). The explanatory variables are interest rate spread, interest expense, loan-loss provision. RGDP was deployed as the control variable. Putting this into functional form therefore becomes;

$FINSD = f (INTRS, INTEX, LLPROV, RGDP)$…………………………………………1

The econometric form of equation 1 is represented as:

$FINSD = \beta_0 + \beta_1 (INTRS) + \beta_2 (INTEX) + \beta_3 (LLPROV) + \beta_4 (RGDP) + \mathcal{E}$…… 2

Where;

$FINSD$ = Financial System Development (Financial deepening (M2/GDP))

$INTRS$ = Interest rate Spread (Prime Lending Rate (PLR) minus Interest on deposits)

$INTEX$ = Interest Expenses (taken as intermediation cost)

$LLPROV$ = Loan-Loss Provisions

$RGDP$ = Real Gross Domestic Product

$\mathcal{E}$ = Stochastic disturbance (error term)

β_0 = Intercept of relationship in the model/constant

$\beta_1 – \beta_4$ = coefficients of each of the independent variables

A priori expectations- $\beta_1, \beta_3, \beta_2 < 0; \beta_4 > 0$

Data presentation and analysis and discussion of findings

The data utilized in this study were derived from the CBN's statistical bulletins and NDIC's annual reports for the period covering 1991 -2017. The full complements of the preliminary tests; the co-integration and causality tests are contained in the appendices.

Unit Root Analysis

Unit root test was conducted as a way of investigating non-stationarity in the variables used, in other words, it was deployed to identify the presence or otherwise of unit roots. Therefore, to avoid the possible occurrence of spurious regression parameters (Gordon, 1995), the Augumented Dickey Fuller test (ADF) was used. The results are presented in levels and first difference format on the table below:

Table 1. Unit Root Table

Varables	Variables at levels			Variables at 1st difference		
	ADF Test Statistics	Critical Values	Remarks	ADF Test Statistics	Critical Values	Remarks
M2/GDP	-2.175	-3.612	Non-stationary	-4.326	-3.622	Stationary, I(1)
INTRS	-3.726	-3.612	Stationary	-5.793	-3.633	Stationary, I(1)
INTEX	-4.539	-3.674	Stationary	-4.496	-3.691	Stationary, I(1)
LLPROV	-3.449	-3.612	Non-stationary	-6.062	-3.622	Stationary, I(1)
RGDP	-1.543	-3.612	Non-stationary	-4.267	-3.622	Stationary, I(1)

Source: Researchers' Results (2018) extracted from E-views 8.0

From table 1, two of the variables (LLPROV and RGDP) were not stationary at levels as their absolute values were less than their respective critical values. However, at first

difference, the absolute values became higher than their critical values, hence, they all became integrated of order one.

Co-integration Test

Sequel to the fact that the series in the analyses above are stationary in their first difference, we proceeded to ascertain the co-integration status of the model. The study used Johansen Co-integration methodology and computed the trace and maximum Eigen values/ statistics to establish/ ascertain the existence of long-run stable relationship among the variables. This method was used due to its rich multivariate estimations.

Table 2. Johansen Multivariate Co-integration Test Results

Trace Test		
Null Hypothesis	**Test Statistics**	**Critical Value**
r = 0*	76.67	69.82
r ≤ 1	45.17	47.86
r ≤ 2	25.72	29.8
r ≤ 3	12.99	15.49
r ≤ 4	2.54	3.84

Source: Researchers' Results (2018) extracted from E-views 8.0
* denotes rejection of the hypothesis at 5% significance level.

Result from above table shows that trace statistic has one co-integrating vector at the 0.05 level. Therefore, the null hypothesis of no co-integration was rejected by the study, thus there is a long run stable relationship between money market efficiency indicators and financial system development.

The Parsimonious ECM estimates

Table 3. Dependent Variable: M2/GDP (Financial Deepening, proxy for Financial System Development)

Variables	Coefficient	Std-Error	T-ratio	Prob.
C	-0.6246	1.0005	-0.6243	0.5412
INTRS	-0.2317	0.1587	-1.4603	0.1636
INTEX	0.0204	0.0055	3.6963	0.0020
LLPROV	-0.5004	0.2817	-1.7765	0.0947
RGDP	2.35E-07	4.36E-07	0.5383	0.5978
ECM(-1)	-0.5405	0.2532	-2.1348	0.0486
R-squared	0.7561			
Ř	0.6646			
F-statistic	8.2647			
Durbin Watson stat.	1.8794			

Source: Researchers' Results (2018) extracted from E-views 8.0

The coefficient of determination is 0.7561 that is, 75.6% systematic variation in financial system development is due to the variation in the included regressors, while the remaining 24.4% is due to Gaussian White noise. However, when the coefficient of determination was adjusted for the degree of freedom, the explained variation became 66.5%. Thus, judging by R^2 and the adjusted ($Ř^2$), the estimated model has both explanatory power and predictive ability. The F statistic of 8.26 is statistically significant at 1% level; this explains that the explanatory variables are linearly related to the dependent variable. The coefficient of ECM being negative and

statistically significant shows that an established relationship between the short run dynamics and long run equilibrium of the model is realizable. This shows there is 54% possibility of reverting to long run equilibrium in case of disequilibrium.

The Durbin-Watson statistic was 1.8794 ($\approx$ 2), shows the absence of auto-correlation or first order serial dependence. Therefore, in the absence of any other assumptions of the OLS, the estimated parameters are adjudged to having optimal desirable properties. In line with a priori expectation of all, money market efficiency determinants, only Interest Expenses (INTEX) has a positive and statistically significant impact on financial development, the positive relationship is contrary to a priori expectation; this shows that high interest expenses remain a major incentive to financial system development in Nigeria. Interest Rate Spread (INTRS) and Loan/Loss Provisions (LLPROV) are negatively related to financial system development in line with the a priori expectations, although the relationships are not statistically significant, thus, these indicate that these variables play some roles in promoting financial system development, but their impact is not statistically significant in promoting financial system development. Real Gross Domestic product (RGDP) has a positive but not statistically significant impact on financial development. This confirms the a priori expectation and it is an indication of the positive role the national economy plays in the promotion of financial system development.

Long Run Analysis

Having analyzed the short run results, we shall present our estimated long run results as contained on table 4 below:

Table 4. Estimated long run results

Variables	Coefficient	Std-Error	T-ratio	Prob.
C	19.8615	7.7187	2.5732	0.0191
INTRS	-0.0962	0.1659	-0.5799	0.5692
INTEX	0.0164	0.0045	3.6710	0.0017
LLPROV	-0.5034	0.2864	-1.7575	0.0958
RGDP	-2.14E-07	2.39E-07	-0.8956	0.3823
ECM(-1)	0.7902	0.2167	3.6476	0.0018
R-squared	0.8579			
Ř	0.8184			
F-statistic	21.7299			
Durbin Watson stat.	2.0847			

Source: Researchers' Results (2018) extracted from E-views 8.0

The results on the table 4 above, show strong adjusted R-square of approximately 82%, indicating that about 82% change in dependent variable (FINSD) is explained by changes in the explanatory variables (INTRS, INTEX, LLPROV and RGDP). The f-statistic value of 21.72 is quite significant at the 1 percent level, thus the hypothesis of a significant linear relationship between the independent variables and financial system development (FINSD) is validated. The Durbin Watson statistic of 2.0847 ($\approx$2) shows that there is no serial correlation in the estimated model, thus making it amenable for policy perspectives. On the basis of the individual statistical significant of the model, as shown by the probability value, the result reveals that in the long run, only INTEX shows significant impact on financial system development with less impact from RGDP, all the other determinants of money market efficiency (value of Interest Rate Spread and Loan/loss Provision) do not impact significantly

on economic development in Nigeria. In terms of the *a priori* sign, values of interest rate spread, loan/loss provision were correctly signed (negative), the negative relationship exhibited by its coefficient indicates that, a decrease in interest rate spread and loan/loss provision would enhance financial system development in the long run.

Table 5. Granger Causality Test Results

Null Hypothesis:	F-Statistic	Prob.	Decision	Causality
INTEX does not Granger Cause M2_GDP	0.06356	0.9386	Reject	None
M2_GDP does not Granger Cause INTEX	0.75398	0.4848	Reject	
INTRS does not Granger Cause M2_GDP	2.31396	0.1275	Reject	None
M2_GDP does not Granger Cause INTRS	1.23234	0.3151	Reject	
LLPROV does not Granger Cause M2_GDP	0.26138	0.7729	Reject	None
M2_GDP does not Granger Cause LLPROV	0.77892	0.4738	Reject	
RGDP does not Granger Cause M2_GDP	6.98775	0.0057	Accept	Bi-directional
M2_GDP does not Granger Cause RGDP	12.2371	0.0004	Accept	

Source: Researchers' Results (2018) extracted from E-views 8.0

The results of the Granger causality tests are reported in Table 5 above. The F-test is conducted on the null hypotheses in order to determine the direction of causality between each pair of variables. The null hypothesis is rejected based on the significance of the F-value for the particular relationship. The Granger causality tests results reveals that there is no causal link between the following: financial system development (FINSD) and interest expense (INTEX) as well as financial system development (FINSD) and interest rate spread (INTRS) plus financial system development (FINSD) and loan-loss provision (LLPROV). Therefore, the null hypotheses of no causal or reverse effects between FINSD and INTEX as well as FINSD and INTRS plus FINSD and LLPROV are accepted. However, a bidirectional causal relationship is found to run from real gross domestic product (RGDP) to financial system development (FINSD), without a feedback effect. It thus shows that financial system development responds to changes in gross domestic product and vice versa. Therefore, fluctuations in gross domestic product are expected to exert strong effects on financial system development in Nigeria and the reverse is also true. This is in line with theory and the results of previous studies.

Conclusion and recommendations

Nigerian financial system has been widely acclaimed as the "most dynamic and diversified in Sub-Sahara Africa" (World Bank, 1993); but it is however bedeviled with challenges bearing on its efficiency and effectiveness. Arising from various analytical tools employed in this study, the results suggest that in both the short-run and long-run, interest expense (INTEX) has a positive and statistically significant relationship with financial system development. This is in line with our a priori expectation and shows that high interest expense is a major factor that affects financial system development in Nigeria. Furthermore, Real Gross Domestic Product (RGDP), has a positive but not statistically significant effect on financial system development in the short run. However, reverse is the case in the long run. This is in line with our a priori expectation and a proof of positive role RGDP plays in the development of Nigeria's financial system. The study also found that RGDP and financial system development have causative impact on each other, this finding agrees with some earlier studies. Both Interest rate spread (INTRS) and Loan/loss provision (LLPROV) have

negative relationship with financial system development. It is important however to note that the negative values for these two variables are not statistically significant, meaning that they still present some potential in the development of our financial system. We proposed the following recommendations based on the findings of the study.

1. The need for Nigeria to develop her economy in order to improve the nation's RGDP which is sine qua non to having a well-developed financial system. The policy thrust in this regard could be tagged against the present drive towards the diversification of our economy and free it from the present huge dependence on oil foreign exchange revenue.

2. Financial institution as major drivers of the economy should be prudent in area of interest expenses (INTEX). This is against the backdrop that high interest expenses represent high cost of funds that is inimical to money market efficiency. In the light of this, the policy suggestion here is that banks should maintain the right mix of deposits liabilities, that is lay more emphasis on cheap funds (such as demand deposits and savings) than expensive funds (term deposits).

3. Maintaining the right mix (as stated above) is the major way to improve interest rate spread INTRS (difference between interest income and interest expenses), with greater focus on cheap funds and good negotiation on the risk assets (loans and advances) side, increased interest rate spread would invariably impact positively on banks' earnings and by extension a well developed and sustainable financial system.

4. In the area of loan/loss provisions (LLPROV), proper monitoring and banks' adherence to prudential guidelines by regulatory authorities would assist in reducing banks' loan/loss provision which could help the development of the financial sector. Proper classification of non-performing loans (NPLs) assets into watch list, sub-standard, doubtful and loss would assist in raising red flags when the needs arise and also assist in preventing bad debt build up. This will invariable reduce the 'cost-effect' of loan/loss provisions on banks.

5. Other recommendations include the following;
   a. The monitoring and supervisory roles of the monetary authorities should be intensified with workable and sustainable templates, in other words, CBN and NDIC should increase their on-field and off-field supervision of financial institutions, keeping tab with regular stress tests, most especially on cost (efficiency), liquidity and credit prudential enforcement as mentioned above. They should function more in a proactive manner rather than reactionary.
   b. Monetary authorities in conjunction with bankers committee should also come up with a template which would relax certain credit requirements which appear to have stifled the loan market, this will help build up the retail and small and medium scale enterprises which will assist in building a strong economy and by implication develop our financial system.

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RELATIONSHIP BETWEEN WORKPLACE DESIGN, ERGONOMICS AND ORGANIZATIONAL PERFORMANCE: A CASE STUDY OF WEST AFRICAN EXAMINATION COUNCIL (WAEC)

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Abstract

In this paper, we examine the influence of ergonomics and workplace design on organizational performance in WAEC, Lagos with the entire workforce of the organization making up the study population. By using a descriptive survey design, a questionnaire was designed and administered on all 83 staff of the organization. Chi-square(X^2) data analysis shows that organizational culture and structure, desk heights in relation to monitors and key boards, poor seating, lighting, workflow, etc., are important workplace design factors that can influence performance. Results suggest that good ergonomics and workplace design practices can significantly improve profitability of WAEC, Lagos. Furthermore, well designed workstations significantly relate to organizational performance in WAEC. The authors recommend that organizations should pay more attention to their work environment as it impacts on their overall performance.

Keywords: workplace design, ergonomics, organizational performance, WAEC, employee productivity,

JEL codes: L20, M10

INTRODUCTION

Business leaders are faced with coping with the needs of employees and the ever-changing needs of business (Kahler, 2016). Adapting to new technologies, supporting health, and reducing stress while keeping a close eye on costs, offers an unheralded challenge. Value creation metrics such as productivity can be difficult to measure in a knowledge-based environment, and facility management metrics have often focused on real estate costs and savings, rather than driving performance and productivity. Bangwal, Tiwari & Chamola (2017), assert that poor workplace design lead to low productivity, low satisfaction, low commitment level, and various health issues. Adopting green workplace design and enacting laws to encourage employers to provide harmless and healthy place of work for their employees is important to manage these problems (Bangwal, Tiwari & Chamola, 2017). Arguably, well designed work environment can reduce absenteeism and improve employees' productivity as well as the overall performance of the organization. A healthy workplace environment makes good business sense, supports employee engagement and creates a culture that encourages innovation and creativity (Kohun, 2002). Organisations with good work environment are more likely to attract and retain highly skilled employees (Gitahi et al., 2015; O'Neill, 2007 Cunnen, 2006), and experience low employee turnover, fewer cases of fraud, better safety practices and improved employees' wellbeing (Cunnen, 2006). However, most times top management of organizations fail to realize that favorable and healthy arrangement of workplace environment can motivate employees to work. Nonetheless, link between the work, office place, tools of work had become the most important aspect in the employees' work itself (Chandrasekar (2011). Arguably, workplace design can enhance employees' productivity as well as the overall success of any organization. Similarly, applying good ergonomic practices can reduce medical costs, decrease absenteeism, and positively affect firm profitability. Indeed, the workplace design have serious implications on how employees

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perform their job and organizational performance. Unsafe and unhealthy work environment is manifested in poorly designed workstations, unsuitable furniture, lack of ventilation, inappropriate lighting, excessive noise, insufficient safety measures in fire emergencies and lack of personal protective equipment etc. People working in such environment are prone to occupational and health hazards that impact on employees' performance. This lower productivity at workplace and poor organizational performance. Previous studies suggest that employees who are satisfied with their workplace and departmental design gave better results, outcomes, and productivity (Leather, Beale, & Sullivan, 2003; Lee & Brand, 2005). In Nigeria, Nwachukwu and Chladkova, (2017) reported an insignificant positive relationship between work environment and employee satisfaction, suggesting that research on the subject is mixed and inconclusive. Nevertheless, it is strategically important for firms to adopt favourable workplace design and good ergonomics practices to achieve high-level organizational outcomes, such as, satisfaction, organizational commitment among others. The office of West African Examination Council, Lagos is located in a high-rise building. It is therefore important to examine the extent to which workplace design in existence has supported the productivity of staff which will culminate in the performance of the organization. The study contributes to management research by examining the relationship between workplace design, ergonomics practices and organizational performance. Specifically, the study attempted to identify the workplace design factors that can affect organizational performance, explore the relationship between good ergonomics practices and improve profitability of WAEC, Lagos. Ascertain the extent to which workplace design affects productivity of employees and establish the relationship between workstations and organizational performance.

THEORETICAL FRAMEWORK

The study draws from Fredrick Taylor's theory concerning standardization of office layouts, Tom Peter's perspective with emphasis on workplace design implications of business drivers and priorities, DEGW's efficiency, effectiveness and expression (three Es) and Balanced Scorecard. Office design can be traced to the scientific management school as proposed by Frederick Taylor, with standardization of office layouts (Laing, 1991, 1993; Duffy, 2000). Laing (1993) argued that flexibility is designed into the office environment by creating a range of different work areas. Grimshaw (1999) suggest that Facilities Management (FM) manage the relationships between organisations, employees and space. Tom Peters focused on office design implications of business drivers and priorities rather than on consequences of design variables on business. Commission for Architecture and Built Environment (CABE) and British Council for Office (2005) conducted their study using two different but highly compatible analytical frameworks. The first framework is DEGW's 'three e's', a means of measuring the potential of the office environment to help businesses become more efficient, more effective and more expressive. The second is the widely respected 'Balanced Score Card', which they found to be a useful means of communicating to management the importance of office environment to human capital, customer relations and business process. These frameworks provide useful insights on the efficiency of expenditure towards the effectiveness of the way people can work.

Workplace Environment

Kohun (2002) defines workplace environment as the sum of the interrelationships that exists within the employees and the environment in which they work. According to Heath (2009), this environment involves the physical location as well as the immediate surroundings, behavioral procedures, policies, rules, culture, resources, working relationships, work location, that influence the ways employees perform their work. Workplace design

fosters high level of satisfaction, positive attitude and desire in employees toward the environment (Monfared & Sharples, 2011; Deuble & de Dear, 2012. The quality of the workplace environment enhances employee's performance and organization competitiveness. Maris (2016) views workplace design to mean a choice of workspaces for all important aversion to the one size fits all approach to workplace design, or agile working. It also means adoption of a bespoke approach to the business, the culture, its people, its rewards and structure. How an organization utilizes their facilities can determine the difference between spaces that create expense versus spaces that are an asset. Successful workplace design strategies are chosen through a process that directly and indirectly links that strategy to the core resources of the business: strategy, structure, processes, people and reward systems (Maris 2016). Arguably, an effective workplace environment management involves creating attractive, comfortable and satisfactory work environment that motivate employees and give them a sense of pride and purpose.

Organizational Performance

Top level managers use different strategies (Ezenwa 2005; Osuagwu, 1999), enabling environment and resources to achieve superior organizational performance (Lawal, 2000). Lawal (2000) opines that organizational performance, otherwise known as organizational success is the ability of an organization to achieve the desired goals. He further stated that it can be measured in terms of Profitability, Survival, Stability, Growth and Ability to adapt to changes in the environmental. In this study, authors used profitability and employee productivity to measure organizational performance.

Work place design and employee productivity

According to Carmen (2013) the work place design considerations include thermal comfort which indicates the right combination of temperature, airflow and humidity. Over the years, many companies have been adopting new designs and techniques in office buildings to improve productivity and attract more employees (Hameed & Amjad, 2009). In their study of the effect of workplace environment on the Performance of commercial banks employees in Nakuru, Gitahi et al (2015) found that the physical aspects did not have a significant effect on employee performance whereas the psychosocial and work life balance factors were significant. They concluded that psychosocial aspects showed the strongest association with employee performance while physical aspects and psychosocial aspects were moderate. Using the survey method and descriptive statistics, Chandrasekar (2011) reported that workplace environment has impact on employee engagement, error rate, level of innovation and collaboration with other employees, absenteeism and employee turnover in Public Sector Organizations. Hameed and Amjad (2009) examined the impact of office Design on employees' performance in Banking Organizations of Abbottabad, Pakistan using survey approach and descriptive statistics. It was observed that office design is very vital in terms of increasing employees' productivity. Gensler (2005) of 200 UK business managers showed that an improved workplace would boost employee productivity by 19 per cent and their own productivity by 17 per cent. In a follow up research survey of 2,000 of employees in the USA, Gensler (2006) observed that 90 per cent of the respondents believed that better interior design and layout result improve employee performance. It was observed that good workplace layout, ventilation, lighting, establishment of equipment and thermal comfort leads to increase job performance of operational level employees. He concluded that a strong correlation exists between elements of workplace design and job performance of employees. Evidently, creating a work environment that encourage employee productivity is essential to increased profits for your organization, corporation or small business.

The Concept of Ergonomics

Asante's (2012) reported that poor ergonomics design and input variables have varying negative impact on the performance of employees. A survey of 350 major corporations, both professional services and small businesses, found that 82.5% believe that good ergonomics makes employees more productive (Danner, 2001). Ergonomics involves adapting jobs and workspaces to the worker. By applying good ergonomic practices, the employer can reduce medical costs, decrease absenteeism, and positively contribute to their employee's wellbeing. Ergonomics reduces strains, worker fatigue and improve productivity. Ergonomics is a comprehensive approach that involves physical, cognitive, social, organisational, environmental and other relevant factors that enhance the design and evaluation of tasks, jobs, products, environments and systems in order to make them compatible with the needs, abilities and limitations of employees (International Ergonomics Association, 2017). Indeed, ccomfortable and ergonomic office design reduces physical discomfort, fatigue, tension, motivates employees and increases their performance substantially.

Figure 1. Conceptual Model showing the relationship of the study variables
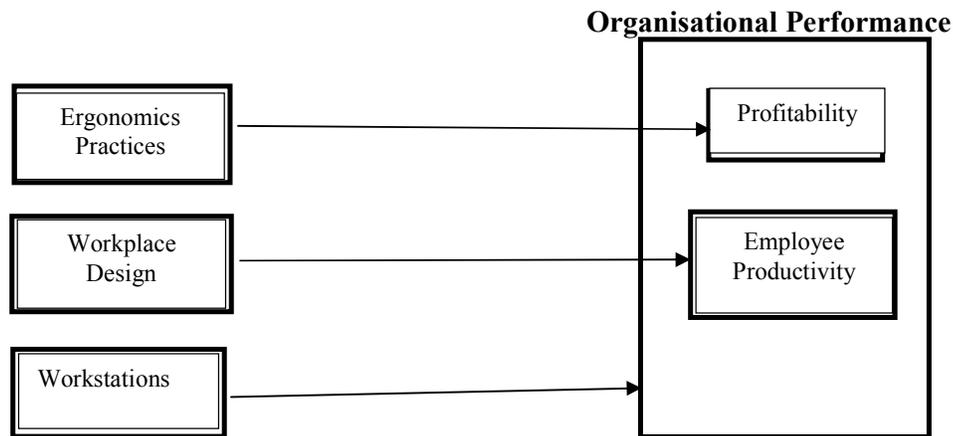
RESEARCH HYPOTHESES

The following are the research hypotheses, presented in null form.

H_{01}: Good ergonomics practices does not significantly relate to increased profitability of WAEC, Lagos.

H_{02}: Workplace design does not have significant effect on productivity of employees in WAEC.

H_{03}: There is no significant relationship between workstations and organizational performance in WAEC.

Methodology

Descriptive survey research design was used. Primary data were obtained using questionnaire administered to employees of West African Examination Council, Lagos State of Nigeria. Books, journals and the internet were used for literature review. The population of the study was 105 drawn from staff of West African Examination Council, Lagos State of Nigeria. A sample of size of 83 was determined from the population using Taro Yamane's sample size determination method. A 5-point Likert scale was used to collect data from respondents. Out of 83 copies of questionnaire distributed, 75 copies were returned and used for our analysis. The instrument was validated by a panel of management scholars and practitioners for face validity and comprehensiveness. The reliability test was done using Cronbach alpha. The reliability coefficient results of 0.89, suggest a high degree of internal consistency. We descriptive statistic in form of frequency tables and chi square to test three hypotheses formulated at 0.05 level of significance. SPSS version 22 was used for different analyses conducted.

Results and Discussion

Table 1. Design Factors that can affect Organizational Performance

Response variables	Frequency	Percentage (%)
Strongly Agree	40	53.3
Agree	20	26.7
Undecided	6	8.0
Disagree	5	6.7
Strongly disagree	4	5.3
TOTAL	**75**	**100**

Source: Field Survey, 2016

Table 1 shows that 40 respondents representing 53.3% of the study sample strongly agreed   that workplace design factors that can affect organizational performance in WAEC Lagos are organizational culture, organizational structure, desk heights in relation to monitors and key boards, poor seating, lighting, workflow, space within the workplace, way finding design and temperature amongst others. Twenty respondents or 26.7% of the same study sample agreed, 6 or 8% were undecided in their opinions, 5 or 6.7% of them disagreed while 4 or 5.3% strongly disagreed. The above distribution suggests that majority of the respondents believe that the above-mentioned factors can affect performance of their organization.

Table 2. Good Ergonomics Practices and Improvement in Profitability of WAEC, Lagos.

Response Variables	Frequency	Percentage (%)
Strongly Agree	40	53.3
Agree	20	26.7
Undecided	8	10.7
Disagree	4	5.3
Strongly disagree	3	4
TOTAL	**75**	**100**

Source: Field Survey, 2016

Table 2 shows that 40 respondents representing 53.3% of the study sample strongly agreed that good ergonomics practices can improve profitability of WAEC, Lagos. Twenty respondents or 26.7 % of the same study sample agreed 8 or 10.7 % were undecided in their opinions. Four or 5.3% disagreed while 3 or 4% strongly disagreed. The distribution above shows that majority of the respondents believed that good ergonomics practices can improve profitability of WAEC, Lagos. This is possible because when an organization considers purchasing adjustable tables and chairs for their workforce it will reduce back pains that may be experienced by the employees resulting in cost savings. Even, if light from the computer desktops is shaded it reduces eye pains which might bring about low productivity. The data were further analysed using chi-square and the result shown below.

Table 3. Result of Chi-square Analysis

	Value	Df.	Asymp. Sig. 2-Sided
Pearson Chi-square	64.284	4	.001
No of Valid Cases	75		

Table value at degree of freedom (d.f) of 4 and 0.05 alpha level = 9.49

Interpretation

Chi-square(X^2) calculated value of 64.284 was greater than the table value of 9.49 at degree of freedom (d.f) of 4 and 0.05 alpha level. We reject the null hypothesis (H_0) in this case; indicating that there is good ergonomics practices and improvement of profitability in WAEC.

Table 4. Effect of Workplace Design on Employees' Productivity

Response Variables	Frequency	Percentage (%)
Strongly Agree	45	60
Agree	17	22.7
Undecided	7	9.3
Disagree	3	4
Strongly disagree	3	4
TOTAL	**75**	**100**

Source: Field survey, 2016

Table 4 shows that 45 respondents representing 60% of the study sample strongly agreed that workplace design affects employees' productivity. Seventeen or 22.7% of the same study sample agreed. Seven or 9.3% were undecided in their opinions, 3 or 4% disagreed while 3 or 4% strongly disagreed. The above distribution shows that majority of the respondents believed that workplace design affects productivity of employees. Lack of motivation emanating from the type of organizational culture, structural problems, poor seating, poor lighting are amongst the workplace design factors that can impact negatively on productivity of staff. The data were further analysed using chi-square and the result was shown below.

Table 5. Result of Chi-square Analysis

	Value	Df.	Asymp. Sig. 2-Sided
Pearson Chi-square	83.734	4	.001
No of Valid Cases	75		

Table value at degree of freedom (d.f) of 4 and 0.05 alpha level = 9.49

Interpretation

Chi-square(X^2) calculated value of 83.734 was greater than the table value of 9.49 at degree of freedom (d.f) of 4 and 0.05 alpha level. The null hypothesis (H_0) will be rejected in this case; indicating that workplace design has significant effect on employee productivity

Table 6. Relationship between Workstations and Organizational Performance

Response Variables	Frequency	Percentage (%)
Strongly Agree	47	62.7
Agree	16	21.3
Undecided	7	9.3
Disagree	3	4
Strongly disagree	2	2.7
TOTAL	**75**	**100**

Source: Field survey, 2016

Table 6 shows that 47 respondents representing 62.7% of the study sample strongly agreed that there is relationship between workstations and organizational performance. Sixteen or 21.3% of the same study sample agreed. Seven or 9.3% were undecided in their opinions, 3 or 4% disagreed while 2 or 2.7 % strongly disagreed. The above distribution shows that majority of the respondents believed that there is relationship between

workstations and organizational performance. The data were further analyzed using chi-square and the result was shown below.

Table 7. Result of Chi-square Analysis

	Value	Df.	Asymp. Sig. 2-Sided
Pearson Chi-square	93.468	4	.001
No of Valid Cases	75		

Table value at degree of freedom (d.f) of 4 and 0.05 alpha level = 9.49

Interpretation

Chi-square(X^2) calculated value of 93.468 was greater than the table value of 9.49 at degree of freedom (d.f) of 4 and 0.05 alpha level. The null hypothesis (H_0) will be rejected in this case; indicating that there is a significant relationship between workstations arrangement and organizational performance.

Decision Rule

Hypothesis 1(H_0): Since data on table 3 were analysed further using Chi-square, the result shows that the chi-square calculated value of 64.284 was greater than the table value of 9.49 at degree of freedom (d.f) of 4 and 0.05 alpha level. The P-value of .001 < 0.05. In this case, we reject the null hypothesis (H_0) and accept the alternative hypothesis. Hence, we conclude that good ergonomics practices can significantly improve profitability of WAEC, Lagos.

Hypothesis 2(H_0): Since data on table 5 were analysed further using Chi-square. The result shows that the chi-square calculated value of 83.734 was greater than the table value of 9.49 at degree of freedom (d.f) of 4 and 0.05 alpha level. The P-value of .001 < 0.05. In this case, we reject the null hypothesis (H_0) and accept the alternative hypothesis. Hence, we conclude that workplace design has significant effect on productivity of employees in WAEC.

Hypothesis 3(H_0): Since data on table 7 were analysed using Chi-square, the result shows that the chi-square calculated value of 93.468 was greater than the table value of 9.49 at degree of freedom (d.f) of 4 and 0.05 alpha level. The P-value of .001 < 0.05. In this case, we reject the null hypothesis (H_0) and accept the alternative hypothesis. Hence, we conclude that there is significant relationship between workstations and organizational performance in WAEC.

Summary of Findings

The findings established in this study;

 I. Workplace design factors that can influence organizational performance in WAEC Lagos are organizational culture, organizational structure, desk heights in relation to monitors and key boards, poor seating, lighting, workflow, space within the workplace, way finding design and temperature amongst others.

 II. Good ergonomics practices can significantly improve profitability of WAEC, Lagos.

 III. Workplace design has significant effect on productivity of employees in WAEC.

 IV. There is significant relationship between workstations and organizational performance in WAEC.

Conclusion

Literature review showed that workplace design has impact on productivity of employees which crystallizes in overall performance of the organization. This therefore follows that the environment in which the organization operates in terms of workplace cannot be toyed with. The identified workplace designed factors should be made in such a way that they should provide the employees better operating environment so that the work can flow freely for enhanced productivity. Based on the analysis of the data obtained in this study one can safely conclude that workplace design and good ergonomics practices, workstation arrangement has significant effect on employee productivity, profitability and organizational performance in WAEC. Lagos.

Recommendations

Based on the conclusion drawn we offer the following recommendations;

• Organizations should pay attention to their work environment because of the impact it has on their overall performance.

• They should be mindful of all the workplace design factors that can hinder employees' productivity and make sure they are put in the right perspective.

• To save costs that may result from poor employee's health conditions due to poor seating in relation to monitors and desktops, poor lighting etc, a good ergonomics practices are suggested.

• organisations should adopt robust oganizational culture and structure that will increase employees' productivity and corporate bottom line.

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ECONOMIC CRISES AND AUTOMATIC STABILIZERS

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Abstract

This paper examines the relationship between economic crises and discretionary and especially non-discretionary public policy measures to support economic developments as a result of the onset and manifestation of economic crises throughout the world. For methodological simplification we chose the period from 2000 to 2018. Thus, the article tries to extract a series of practical and theoretical elements regarding the two issues addressed: economic crises and automatic stabilizers.

Key words: economic crises, macroeconomics, automatic stabilization, discretionary stabilization

JEL Classification: *G01, E02, E32, E63, H12*

1. Introduction

For two thousand years, the economic and financial crises have followed up with a stunning swiftness, passing through panic (e.g., financial panic in 33 AD, Panicles in the United States in 1785, 1792, 1796-1797, 1819, 1857, 1873 , 1893, 1901, 1907, 1920-1921, etc.), speculative bubbles and mania (e.g. South Sea Bubble, 1720, Bengal Bubble, 1769, Tulip Mania, 1637 etc.), depressions (e.g. Great Depression of Tobacco 1703, Depression after the Napoleonic Wars 1815, etc.) and financial crises, debt crises and recessions (e.g. the 1763 crisis, the 1772 crisis started in Amsterdam and London, the financial crisis triggered by the War of Independence, 1776, the crisis Energy in 1979, 1990 Recessions, India's Economic Crisis, 1991, Asian Financial Crisis 1997, Financial Crisis in Russia 1998, etc.).

Many of these have caused new crises, expanding both in time and space, from one geographic area to another, demonstrating that the possibility of isolation of crisis outbreaks is extremely low.

The same issues are observed at the level of the 21st century (e.g. the early 2000s recession, Bula Dot-com, 2000-2002, the Turkish crisis of 2001, Uruguay banking crisis of 2002, the 2007-2009 financial crisis, the subprime mortgage crisis 2007-2010, Icelandic Financial Crisis 2008-2012, Irish Banking Crisis 2008-2010, Latvian Financial Crisis 2008, Sovereign Debt Crisis in Europe beginning in 2009, Portuguese Financial Crisis 2010-2014, Capital Market Collapse in China 2015, Foreign Exchange and Debt Crisis in Turkey in 2018, etc.), demonstrating once again that few lessons are drawn so that the negative effects of economic crises are greatly diminished or completely avoided. Therefore, the article aims to analyze by reviewing some contemporary crises what are the possible causes that led to their emergence and their way of institutional "treatment", more exactly the stabilization path.

2. Literature overview

According to Andersen (2016), before the Great Recession, the consensus on economic stabilization was that the main instrument that should be used is monetary policy, and fiscal stabilization policies were limited to the operation of automatic stabilizers, discretionary fiscal policies being considered usable only in particularly severe situations (e.g. the Great Recession). Against this backdrop, in the context of a narrower fiscal space in terms of fiscal stabilization capacity, automatic stabilizers have been promoted, praised, their qualities shared and efforts have been made to strengthen their use by international institutions (e.g. IMF, European Commission and OECD).

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A recession, and in a severe crisis, is associated with a deterioration in the public budget position, with shocks being dissipated and amortized over time through the public budget to accept larger deficits when economic activity (and aggregate demand implicitly) low. The presence of reasonable fiscal space and symmetry is important in the functioning of automatic stabilizers, in the sense that budget surpluses create room for budget deficits during the economic recession, especially in the context of general government tax limits or rules.

A number of authors (Domeij and Flodén, 2010, OECD, 2014) note that automated stabilizers allow the consequences of economic crises to shift to the issue of income inequality. It is therefore extremely important to redistribute the tax system and fiscal-budgetary transfers that will improve income losses both in households and businesses.

Following the economic and financial crisis triggered in 2007-2008, for the European Union, the literature highlights the existence of a very high heterogeneity from one country to the other on automatic stabilization and the way in which policy-makers react in this regard. Thus, the damping system driven by automatic fiscal stabilizers (the tax and transfer system) varies from around 25% in the Central and Eastern European countries to almost double in Western Europe and especially in the Nordic countries. With stronger automatic stabilizers, they showed good resistance to unfavorable economic conditions, while countries with weaker automatic stabilizers (Greece, Spain and Portugal, some of the Central and Eastern European countries) registered increases in the unemployment rate, strong economic contraction and considerable migration of labor abroad.

In the short term, as a result of reforms implemented by national governments, such as fiscal consolidation measures (sometimes through tax increases), automatic stabilization has suffered changes in social and systemic benefits over the medium to long term of taxation have resulted in the strengthening of the tax systems and, implicitly, of the automatic stabilization offered by them. According to the same studies, due to increased heterogeneity in the countries of the European Union, substantial changes to automatic stabilization can not be noted after 2007, although the stabilizing effect appears to be stronger in the euro area than in the rest of the EU. However, it is noted that countries with stronger automatic stabilization (e.g. Nordic countries) have experienced a steady evolution or even a reduction in the stabilizing effect, while countries with weaker automatic stabilizers have seen increasing effects good auto stabilization. However, in the case of the Southern and Eastern European countries, for low income social groups the stabilizing effect on disposable income remains low (e.g. Dolls, M., Fuest, C. and Peichl, A., 2010). In conclusion, in the context of automatic stabilizers, the effects of income inequality, especially felt during economic crises, are improved. However, the benefits of automatic stabilization must not be either absolutized or exaggerated.

3. Methodology

This article studies the connection between a series of contemporary crises and their economic stabilization solution. By analyzing the causes, it is intended to indicate some punctual solutions taken by the fiscal or monetary public authorities, but also a tinge of the problem area (only theoretically) and how the problem of stabilization should be addressed. This article uses national and international statistical databases as well as profile studies. The analysis period ranges from 2000 to 2018, divided into 2 periods 2000-2010 and 2010-2018 for both a closer analysis of shorter periods and the surprise of the global economic crisis. The conclusions drawn up retained a series of reservations due to the natural limits conveyed by the still limited sets of data and information, the manner of disseminating information of an official or informal nature of the economic policy decisions.

4. Results and discussions

Some episodes blend more or less with the definition of the recession, for example the recession of the early 2000s, especially in the United States, where there were no two consecutive quarters of negative economic growth. However, the decline in economic activity, the uncertain economic climate, and the impact on an extended area of countries of the European Union, Canada, Australia and Japan (note: in Japan, the recession began in 1990) have allowed this type of framing on the gorunds of the rising of unemployment rates, layoffs in various industries, and the need to cool down economies at one time by raising monetary policy rates (e.g. Fed, 2000-2001, amid asset overvaluation on the stock market). These phenomena have been accelerated by the collapse of the stock markets and the terrorist attack of September 11, 2001, leading in the period 2000-2002 to the loss of almost 2 million jobs in the United States and massive layoffs in Canada.

However, Canada was not in the recession itself, the United States terrorist attack, marking it economically only marginally, perhaps even on the grounds of considerable budget surpluses, with the federal government not considerably reducing budget expenditures or reducing fiscal pressure but by acting through an expansionist monetary policy. As we know, alongside the social protection system, the tax system also plays an important role in stabilizing the revenue available at both individual and aggregate levels in the form of automatic stabilizers. Therefore, in a recession, the public budget position will suffer deterioration, with the negative consequences of the change being absorbed by the budget. In a state, if the social welfare network is broad and if the financing from the budget is important, then automatic stabilizers will be significant in counteracting the adverse effects of the recession or crisis by improving the effects of asymmetric shocks on private consumption and aggregate demand. However, it is hard to say about the automatic nature of stabilization in Canada, because many Canadian provinces have suffered and returned to budget deficits, affecting the overall economic performance of the country.

Russia also felt as a result of the East Asian economic collapse in 1997, and in August 1998 the ruble collapsed considerably and caused numerous withdrawals of capital from banks' deposits. Meanwhile, the government acted through pro-dirigiste economic measures and massive privatizations as well as the export-oriented economy.

In Japan, the problems left behind by the 1990 recession have been manifested by persistent deflation, with the Bank of Japan trying to combat it by liquidity injections and nominal interest rates in the proximity of 0%. Against the background of the announcement that Japan entered the recession in early 2000, there were massive and disproportionate global technology sales affecting technology stocks.

In the European Union, the introduction of the euro on 1 January 1999 was not felt too strong in the first phase, with a weak currency between 2000 and 2001, but only after the summer of 2002 it reached the parity of the dollar, resulting in recessions of about 6 months in France and Germany. With more or less controversial episodes, some European Union countries have managed to avoid recession by the end of 2000. In tables no. 1 and 2 (continued) and Tables 3 and 4 (continued) are presented a series of global episodes of crisis from 2000-2010, and 2010-2018 in which are presented the causes, the way of triggering, but also the way they were solved.

Table no. 1 - A series of global crises from 2000-2010, as well as discretionary and non-discretionary solutions to their correction or moderation

Crisis and / or period	Country / region	Causes / triggering mode	Solutions (discretionary or non-discretionary)
Bula Dot-com (started in 1995, continued until the beginning of 2000)	United States, Europe, the whole world	Excessive financial speculation amid the explosive growth of telephone companies and the internet. At the same time, among other causes, there are also malicious mentalities such as growth over profits, financial waste on advertisement, business facilities and luxury holidays for employees, as well as parties and events where large amounts of money were invested when they were launched new websites or new products. As far as the telecommunications bubble is concerned, investment in telecommunications infrastructure was far above cash flow and in Europe mobile companies purchased 3G licenses in debt. These issues have greatly contributed to the collapse of not only a few important Internet and telecommunications companies, but even to the damage to these areas and related fields.	Bankruptcy, liquidation, downsizing of the companies in the field and related activities (transport, advertising, etc.), correcting the mentality of the directors of those companies regarding the use of risk capital, much more stringent regulations in force, convicting the telecommunications companies, the Internet and the investments involved and their directors for fraud and the payment of huge fines for misleading investments (including Merril Lynch and Citigroup).
The 2001 economic crisis	Turcia	The economic crisis was driven by the fact that economic growth was mainly based on foreign investment, and huge budget deficits, political instability, corruption and inflation have exposed the government's inability to meet its short-term financial obligations. Against the backdrop of political instability and considerable budget deficits, investors have withdrawn their capital massively and quickly (in just a few months). This has triggered the slowdown in the Turkish economy, the necessity to resort to IMF loans, privatizations of state-owned companies, unemployment, poor access to health services, limiting lending and raising tax rates.	The IMF loan and, in general, the macroeconomic stabilization efforts were considered insufficient. Against the backdrop of the dramatic rise in interest rates and rapid dollarization and euroisation as a result of increased mistrust in the national currency, Turkey's central bank lost massive foreign exchange reserves. Socially, unemployment has grown spectacularly and income inequality has grown even more. Therefore, the need for effective discretionary measures, but above all for elements of automatic stabilization - a well-functioning social and tax-budgetary system would considerably mitigate these shocks.
The 2002 banking crisis	Uruguay	The banking crisis in Uruguay was driven by massive withdrawals of depositors' capital, most of them coming from Argentina. A third of deposits were taken out of the financial system and five financial institutions remained insolvent, with the government having to freeze bank operations. The cause was an excessive dependence on the neighboring country, Argentina (e.g. tourism and construction) and its own economic contraction at the end of 2001.	Proper regulation of bank offshore capital would have relieved the Uruguayan economy of the effects of this crisis. Similarly, allowing three foreign banks (Chemical Overseas Holdings, Inc., Dresdner Bank Latinamerika and Credit Suisse First Boston) to acquire one of the oldest banks in the country, Banco Comercial del Uruguay (BC), proves the Central Bank of Uruguay inability to understand the risks faced by the financial-banking system in the absence of rigor in banking legislation and risk-taking. At the same time, a rapid and efficient reaction from the central bank would have isolated the spread of the banking crisis in the economy. Economic recovery was made possible by governmental changes and the appointment of competent ministers with high credibility in key portfolios.

Source: Various online information, from which Edwards (2016), Özatay and Sak (2002); author processing

Table no. 2 - A series of global crises from 2000-2010, as well as discretionary and non-discretionary solutions to their correction or moderation (continued)

Crisis and / or period	Country / region	Causes / triggering mode	Solutions (discretionary or non-discretionary)
Global Financial Crisis, 2007-2008	The United States, the whole world	Considered the worst crisis since the 1930s Great Depression, it began in the United States as a subprime mortgage market crisis in 2007, gradually turning into a banking crisis, then into an international banking crisis amid the lack of liquidity, with the collapse of Lahman Brothers in 2008. The subprime crisis in the US was due to the following general reasons: - low mortgage rates; - grouping multiple mortgages, packing, overvaluing, securing and selling them in the form of new mortgage-backed securities; - lax and often outdated mortgage lending regulations, including the federal reinvestment law in the federal law, aimed at increasing easeing of purchase of properties by low and middle income Americans; - providing mortgage guarantees for high-risk subprime loans, many of which are under the US government's implied guarantee through quasi-government agencies Freddie Mac and Fannie Mae; - sub-capitalization of banking financial institutions in relation to the risks assumed; - the failure of international rating firms to notice the dangers and financial risks of the US mortgage market as well as of the monetary regulators (e.g. the abolition of the Glass-Stegall Act in 1999, there being no risk differentiation between commercial and investment banks) and supervision; - inability of the financial market for self-testing, self-regulation, for stopping and remediation of excesses; - dramatic and systematic violations of ethics and accountability in the financial and banking system.	Rescue discretionary measures have been used for major financial and fiscal institutions of a fiscal-budgetary and monetary nature, but without much success, following a global economic downturn - the Great Recession (2008-2012), then in Europe, the sovereign debt crisis. In 2010, laws on consumer protection and the promotion of financial stability, as well as on global capital and liquidity standards (Basel III), were adopted in the United States. However, the economic downturn has continued worldwide, international trade has deteriorated, many other areas than those originally affected by the crisis have also been touched, many businesses have faced bankruptcy, and the population has been confronted with indebtedness, housing loss, wealth and well-being losses, but also with prolonged unemployment. Governments instead of implementing rescue measures and economic stimulus programs should have to act preventively through strict fiscal and budgetary regulations, and after the crisis triggered by financing the cause - the original lender-holders - the population and not investing in financial-banking companies. At the same time, central banks should have been properly designed to quickly and efficiently prevent and detect dangers (e.g. mortgages and toxic financial products), to impose proper legislation on risk and loss taking, starting from the banking- commercial banks.
The banking crisis, 2008-2010	Irland	Against the backdrop of the Great Recession, a number of Irish financial institutions have suffered severely from lack of solvency. In the period prior to 2007, the international bond loans of the six largest Irish banks - Bank of Ireland, Allied Irish Banks, Irish Life & Permanent, Irish Nationwide Building Society, Anglo Irish Bank and the Building Education Society have increased more than 6 times, coming to the attention of the ECB on Basel II regulations (e.g. bank capital adequacy). However, the lax supervision of the Irish banking system allowed Irish banks to make excessive borrowing in corporate and international money markets, in the context of the freezing of the international banking market, which led to liquidity problems in the Irish banking system. In addition to the lack of liquidity, initially starting from a considerable increase in loans amid an internal real estate bubble, solvability problems were added, requiring massive injections of money to avoid the collapse of the most important Irish banks.	The Irish Government has implemented rescue measures by investing tens of billions of euros, while also calling for IMF assistance and requesting EU support through the European Financial Stability Facility, requiring political, legislative and economic restructuring measures. Probably, designing automatic stabilizers to better link banking products to international developments (e.g. liquidity crisis, international contagion effect), but especially with real estate price developments would have eliminated or mitigated the effects. Also, stricter financial and banking regulations and better supervision by the Central Bank of Ireland would have exposed the financial and banking sector less to these shocks.

Source: Various online information, mention Temin (2010), Whelan (2013); author processing

Table no. 3 - A series of global crises from 2010-2018, as well as discretionary and non-discretionary solutions for their correction or moderation

Crisis and / or period	Country / region	Causes / triggering mode	Solutions (discretionary or non-discretionary)
European Debt Crisis, 2010 - present	The euro area	The causes of the debt crisis varied from country to country. Among the causes are easy lending up to 2008, financial globalization, the 2007-2008 crises and the Great Recession 2008-2012 launched in the United States. In some countries, private debt due to the real estate bubble was introduced into sovereign debt by saving national banking systems in other countries, the slowdown in economic growth as a result of the real estate bubble required government intervention and the measures were not the most inspired. Also, the euro area with only monetary and non-fiscal union did not allow a rapid and automatic reaction of macroeconomic policy instruments, European leaders being limited by the constraints of the lack of supranational fiscal and budgetary instruments. National monetary and fiscal instruments did not manage the crisis. At the same time, European banks have owned and still hold a significant part of the sovereign debt of the euro area countries, and national financial problems are affecting the banking system of euro area countries and vice versa.	Euro area Member States (especially Greece, Portugal, Spain, Ireland and Cyprus) have been unable to repay / refinance their government debt or save over-indebted banks by calling on the ECB and the IMF. Thus, the European Financial Stability Facility (EFSF) and the European Stability Mechanism (ESM) were assisted by the ECB through low interest rates borrowing from the ECB, by lowering the ECB's monetary policy rate and by lowering yields of Outright Monetary Transactions (OMT). Against the backdrop of economic recovery and the reduction of structural deficits since 2014, Portugal and Ireland have left the rescue programs, Spain has redirected its rescue package from the ESM for banking recapitalization, Cyprus and Greece have returned to the capital markets. If the automatic stabilizers were likely to have worked better, the social, economic and labor market effects would have been greatly attenuated, and Britain might not have been tempted to initiate exit procedures from the EU.
Financial crisis 2014-2017	Rusia	At the end of 2014, against the backdrop of the depreciation of the Russian ruble, investors looked at the Russian economy in reserve, contributing even worse to the collapse of the currency, affecting exports by drastically reducing the price of oil. Another cause is the international economic sanctions after the armed intervention in Ukraine and the forced annexation of Crimea. Russia's economy depends on the major resources, namely oil exports, and the increase in oil production in the United States and the drop in oil demand during 2014 have considerably reduced the profits of state-owned companies and, implicitly, Russia's government revenues. Among the most affected were the exporting companies, some foreign and domestic companies in Siberia, consumers and the capital and banking markets (e.g. rising interbank rates).	The central bank of Russia tried to control the depreciation of the currency by repeatedly consuming the foreign exchange reserve, also intervening by raising the monetary policy interest rate. At the same time, he intervened to save a major commercial bank. By 2015, the Central Bank has repeatedly reduced its key interest rate, but without much success in stabilizing the economy and reducing inflation. Against the backdrop of the crisis, the government seized more than half of Russia's productive assets. Plutocracy, corruption, low technology adaptation, precarious infrastructure, the regulations, ambiguous legislation and ambiguous behavior of the Central Bank of Russia contribute, along with external developments, to Russia's difficult return. Today, the economy has stabilized, Russia's foreign exchange reserves are still considerable, but inflation and interest rates continue to rise considering to European standards, and the social and demographic effects of the crisis are still felt. In the context of automatic stabilization, a more rigorous design of monetary instruments might prove useful, the government should have insisted on supporting other areas (education, infrastructure, technology, health, etc.) that might have reduced the dependence of the country's natural resources and the whims of international developments.

Source: various online information, mention Grinin, Korotayev, Tausch (2016), OSW (2015); author processing

Table no. 4 - A series of global crises 2010-2018 as well as discretionary and non-discretionary solutions for their correction or moderation (continued)

Crisis and / or period	Country / region	Causes / triggering mode	Solutions (discretionary or non-discretionary)
The turbulence on the capital market in 2015-2016	China	Since mid-2015 and early 2016 there has been a dramatic collapse in the value of shares in the Shanghai stock exchange, companies have experienced a slowdown in transactions to reduce losses. Despite the temporary returns of the stock exchange at the beginning of 2017, the Shanghai composite index was half its value in early 2015. The boom was partly due to the Great Recession and its effects, the government considering necessary to attract financial resources from the public and private sector to speed up the economy. The government opportunity to finance the economy through an open security market to ordinary citizens (the "Chinese dream"), although in the first instance increased stock market capitalization by the large number of players, has led, through their low professional quality, to overestimating assets and / or acting impulsively. In addition, the Chinese Securities Regulatory Commission has facilitated this evolution by relaxing existing regulations, allowing and encouraging short selling and listing of bad state companies. Nor did China's People's Bank's repeated devaluations have helped to redress the situation. By the beginning of 2016, the industrial output index has fallen dramatically and the cumulative effects have led to dramatic correction of the capital market.	The government intervened to halt turbulence on the capital market, regulators intervened by limiting short selling, moderating public offerings, encouraging brokerage firms to buy cash from the People's Bank of China, measures going to arrests, and convictions regarding the manipulation of the capital market. Over-indebtedness to develop its economy through the stock market led to Black Monday and Tuesday (August 24 and 25, 2015), not only for China, but also for the big stock exchanges of world economies. In addition, the speculative nature also comes from the need to develop the services sector (investment banks, restaurants, spa, airlines, etc.) at the expense of the manufacturing industry, a natural trend found in Western economies for many years. The solutions are partly of a legislative nature, but also of an educational nature, by better understanding of the internal and international environment. At the same time, addressing public policy mistakes, preventing panic and financial and economic weakness should be a matter of concern to the authorities in China and around the world. Since automatic stabilizers are built on rules and norms, a more accurate design of these instruments will lead to their automatic change in relation to the economic cycle and might contribute to the mitigation of economic and social aspects.
2018 currency and debt crisis	Turkey	The crisis was caused by repeated waves of depreciation of the Turkish lira, rising inflation, increasing the current account deficit, the inability to face the debt, especially in the currency. The crisis was also triggered by President Erdoğan's authoritarian policy and commercial friction with the United States, with tariffs that have disadvantaged exports of products such as aluminum and Turkish steel to the US. Stagflation was partly due to government spending, real estate explosion and easy credit.	The government has developed a new three-year economic program to stop the crisis by cutting government spending, focusing on boosting high value-added economic areas and stopping unprofitable projects, supporting production and exports, and creating jobs, anticipating also the first phase the reduction of economic growth in the short term. It is necessary to increase the quality of political leadership and to offer the full autonomy of the Turkish Central Bank; these aspects could facilitate automatic stabilization.

Source: various online information, mention Huang, Miao and Wang (2016), Krugman (2018); author processing

5. Conclusions

In a brief assessment of the causes and solutions, we can see that at the basis of any type of crisis there are the primary needs (the need for housing - the real estate bubble) or the more evolved (the need for communication and technology - dot.com bubble). These needs are speculated with great ability, in the first instance, by companies operating in the fields that can cover those needs. In the next phase, financial and banking institutions are willing to "help" the companies involved but especially the "consuming" population, while at the same time the financial institutions have the benchmark of an easy gain by offering solutions that allow indebtedness regardless of liquidity, but even worse, indifferent to the solvency of the borrower for the acquisition of that product which cover the need. The "complicity" of the state is evident through indifference or even relaxation of the legislation in force regarding the suppling field of covering goods for "consumer's pressing needs" and even worst for financial-banking institutions. The motivation is the state's interest in ensuring prosperity and covering its budget deficits, so sometimes economic growth is needed at any cost, sometimes at the cost of crises. This is how the bubbles start, overturning by successive packaging and contagion effects from one or two areas affected to the entire national economy and related economies.

Crisis have international repercussions, even if initially they are national or regional, so always and extremely easy, through "proper" channels can become global. The big world economies, both geographically and economically (e.g. the United States, Russia, the

European Union, Japan, China etc.), which have a political desirability of welfare and employment growth, often rely on sustaining high economic growth, irrespective of the consequences. However, even small states that want to solve problems through various economic "tricks" (e.g. support services, support the construction industry and easy lending etc.) can be "triggering" the economic crises, but these crisis may rarely become international.

Generally, pride, greed, lack of morality and empathy, and ultimately lack of discernment are the most important motivations that attract all actors: state and private companies, including the financial and banking system, over a well-established "victim" - the citizen, the consumer or the population, speculating and stimulating its "need". The solution is simple but often difficult to implement: financial education primarily of the consumer and then of the banking system, the state, and private companies.

If any of the actors involved, and especially the institutional ones, would of reacted differently, prudently, complying with legislation or imposing new legislation in the case of regulatory vacuum, the crises would not have occurred or would have occurred with a lower intensity and would have been less extended in space and time. So the "discretionary" solution following the crisis would no longer have been so necessary. Salvations - bail-out or bail-in by both the state and the international financial institutions would have been redundant or very little and poorly used.

At the same time, if the social security and fiscal tax system would have been designed in a socially correct manner, to combat social inequalities and if there would have been those fiscal-budgetary "financial sources of freedom", crises could have come and fade more or less as they came. This is the context of automatic stabilization - freedom of maneuver (e.g. political non-intervention) and proper design of fiscal and budgetary and monetary instruments, so that crises do not occur or if they occur to be strongly attenuated. Although it does not require a discretionary (monetary or fiscal) policy type, as it is a tool that uses the channels and tools of discretionary policies, automatic stabilizers imply a better, more rigorous and more equitable social design.

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MODERATING INFLUENCE OF TRAINING AND DEVELOPMENT ON ENTREPRENEURIAL PERFORMANCE: A CASE OF SMEDAN NIGERIA

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Abstract
This study assessed the moderating effect of training and development on entrepreneurial performance of Small and Medium Enterprises Development Agency of Nigeria (SMEDAN). The objectives of the study were to examine whether training organized by SMEDAN affects SMEs employment creation and also to determine the effect of Ethical training and development on entrepreneurial performance. Series of questions were asked using the questionnaire adopted by the researcher. The sample size comprised of one hundred and forty two (142) SMEs out of the two hundred and twenty (220) SMEs population of the selected SME that are registered with SMEDAN in Lagos, Nigeria. The ex-post facto and Yamane formula was adopted.The test re-test reliability approach was used. The data was analysed using manual and electronic based methods through the data preparation grid and statistical package for the social sciences, (SPSS) statistical package version 21.0. The study made use of statistical tools which include: analysis of variance (ANOVA), correlation efficient and regression analysis in testing hypotheses where applicable. The findings of the research showed that the impact of ethical training and development would be more significant if the young entrepreneurs had earlier exposure from secondary to tertiary education level to make better entrepreneurs in Nigeria and also training organized by SMEDAN has effects on SMEs employment creation which has enhanced entrepreneurial performance in Nigeria. The study recommends that training and development programme should focus on developing creative or innovative individuals who can help to move the nation forward. A Self-reliant person is a creative individual

Keywords: *Training and development, Entrepreneurial Performance, SMEDAN, Employment Creation.*

Introduction

The need for entrepreneurs to pay attention to training and development has become necessary because of challenges beings faced by entrepreneurs in their various business environment (Shaker, 2011; Thomas 2013; GEM, 2008; Subchat, 2008). Stillman (2003) defined entrepreneurship education as an effective means of providing human beings with skills relevant to social needs of sustainable national and individual development. Harnessing of other factors for formation of business venture is made possible in youths through the idea and skills acquired in entrepreneurship education. Such other factors are capital, site of a business enterprise, material needed among others (Spender, 2002). Entrepreneurship education has been viewed as an effective tool for entrenching sustainable development. Kowo & Kadiri (2018) asserted that entrepreneurship education inculcates in youths efficient methods of distributing goods and services to the consumer and the desirable social and cultural behaviors. Improvement of Managerial Efficiency Entrepreneurship education equips the recipients with relevant skills, behavior, business attitude and curbs managerial deficiency if properly channeled. Creation of Institutional Relationship Entrepreneurship education creates glaring relationship between institutions and industries as the operators of industries allow the students of entrepreneurship education to gain practical work experience. All employees need some form of training that gives them a wider general knowledge of new techniques that will be beneficial to both the employer and employees**.** Klapper (2004) posit that effective training programme can improve efficiency and morale, develop supervisors and decrease amount of supervisors needed. Jackson (2011) perceived entrepreneurship

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education as the greatest force that can be used to achieve quick development of the nation's economic resources. Any work that involves physical exertion is still frowned at in the country. Snyder (2011) Opined that efficient management of resources entrepreneurship education inculcates in individuals skills enable them manage resources efficiently. Waste and misuse of resources that usually have influence on business are properly guided against; because of the knowledge of efficient application of resources which entrepreneurship education equips individuals. Stewart (1998) emphasized that the objectives of management training is to improve current performance and provide trained staffs, skills to meet present and future needs. He further explained that when training is effective individual need will be determined. Management training yield new techniques, provide for succession, thus ensuring that qualified replacements are available, lead to reduction in waste, scrap rate and improve machine utilization (Ogundele, 2012). The quality of human resources that is available in an entreprenueur organization depend on the processes of recruitment, training and development of the workforce.The procedure of recruiting good staff into the organization, how to train new employees to be useful in their contribution to the organization and the development of management staff should be the concern of all organizations (Ajonbadi, 2017).

Ogundele (2005) emphasized on the need for management and other training and development institution in Africa to focus on developing creative or innovative individuals who can help to move the nation forward. Otokiti (2013) posit that except employees are disciplined and exhibit ethical behavior, all training and development efforts will produce little or no results. It is now an important phenomenon for entrepreneurs to utilized effective management training which is a source of wealth for entrepreneurial growth and expansion of new markets in the regions. (Starr & Fondas, 1992; Stefanovic et al, 2009; Galloway & Brown, 2002).

Literature Review
Training and Development
Ajonbadi (2017) postulates that training and development is the process of modifying behavior in organizations which represent entrepreneurial function. Decades of research considered training as the organized procedure by which people learn knowledge or skills for a definite purpose. Training means to educate someone narrowly by instruction, drill and discipline. Snyder (2011) regarded training as applying principally to the improvement of skills and hence of learning how to perform specific tasks. Training is the systematic development and improvement of an individual;s ability to perform specific task or job (Shaker, 2011; Ogundele 2012). Entrepreneurs are agent of social technological and economic changes, entrepreneurial training and development will encourage Nigerian to become job creators, rather than job seekers. it will equip them with skills for innovation and improvement of ideas and skills (Olayemi & Ogundele, 2004) Adewunmi (2004) posit that within the context of globalized economy, nation states and their economies are being reorganized into one big production unit, where transnational corporations are free to operate virtually on their own terms and without much regard to national legislations. Ogundele (2004) observes that for success of National Economic Empowerment and Development Strategy (NEEDS) we require a new development effort, this he calls spiritual capitalism, which will involve among other things, calling out the best from every Nigerians. Armstrong (2009) notes that globalization has several elements with varying contending demands on national development; this range from self-reliance, ethics or discipline behavior, man power development,entreprenueur stream development to several others. Training brings improvement to employee's skills, leadership with vision and not mafia managers will cap these suggested improvement (Moberg, 2014). Training is concerned with modifying behavior in organization. Ethical training is supposed to have immediate and direct impacts

on behavior modification; this is because it is concerned with building the individual, desirable societal or organizational set of valued behavior (SMEDAN, 2012). Training programme should focus on developing creative or innovative individuals who can help to move a nation forward (Ajonbadi, 2014; Stillman, 2003). Since education is concerned with increasing general knowledge and understanding of total environment, therefore the major burden of education falls upon our formal school system. (Galloway & Brown, 2002). Although training and education frequently occur at the same time (Swierczek & Ha, 2003). Development as a planned process of providing employees with many experiences desired to enhance their contribution to organizational goals (Klapper, 2004; kuratkho, 2005; Kowo, Sabitu & Adegbite, 2018).

Evolution and Evaluation of Training and Development in Nigeria

Ogundele (2004) Pointed that the origin of serious concern for training and development in Nigeria can be dates back to April 1959 when the federal government set up the Ashby commission on the eve of independence to conduct an investigation into Nigeria needs in the field of post-school certificate and higher education over the next twenty years. The deficiencies of the Ashby was a result of lack of balance both in structure and in geographical distribution, Ashby reports recommend a broad based university education. It demands that professional qualification in accounting, personnel and banking should be obtained in the universities, Ashby made direct recommendation on management studies. Ashby also recommend that institute should make sure they make available full time commercial courses. Higher management should be taught at the postgraduate .University of Lagos was arranged for courses leading to commerce and business administration among others (Zahraden, 1981). Nigeria Management Group brought non formal employment training in 1961; the group was renamed in 1962 as Nigeria Institute of Management which was established as a nonprofit making association of professional managers. The Second National Development Plan 1970-1975 brought the establishment of key manpower training and development programs and institutions (Udo-Aka, 1987). (ITF) was established under decree no 47 of 1971 which are set up for four broad categories which are supervisory and management training; employer owned training institutions; trade group training programme and in company training programme (Ogundele,2012).Nigeria Institute of Management(NIM) services and programmes include management consultancy, executive selection, publication, annual national management conference and training, management research and offering courses to help practicing managers for concepts, techniques and method acquired(Otokiti, 2013). According to Ajonbadi (2017) The Administrative Staff College of Nigeria (ASCON) was set up by decree no 39 of 1973 with the following functions which include establishing and maintaining library; conduct management research and to provide exchange ideas and experiences among management and administrators for better understanding and promotion. Adewunmi (2004) postulated that Center for Management Development (CMD) contributed immensely in the role of managerial resources which can be categorized under promotion of entrepreneurial role; coordination of activities of private and public institutions involved in management education training and development and the action role which aim at improving the quality of management education, training and development.Osuagu (2006) Emphasized that National Institute for Policy and Strategies (NIPSS)was established under Decree No 20 of 1st January 1979 to conduct conferences, workshops and seminars for leaders in public services and private sectors with certificates awarded when necessary.

Ogundele (2012) Evaluation is determined whether changes in skills, knowledge and attitudes have taken place as a result of training and development. This is so because; first, there are problems that arise from the nature of behavioral sciences which are not exact, and second, there are problems that arise from the variety of factors influencing employees and

managers (Sule, 2014). Ajonbadi (2014) stated that from 1960 to date there has been phenomenal increase in training and development activities. He emphasized that training and development has expanded horizontally and vertically. It is obvious that training and development have a moderating influence on organizational performance and organizational members effectiveness.Sule (2014) postulates that result of trainers intervention are below expectation because a large number of these trainers themselves need to be trainined.Another factor affecting effectiveness in the area of training and development is the concept of reflecting the Federal character in both the public and private organizations. General indiscipline among Nigerian workforce in all sectors of the economy has been a negative factor that affects training and development in Nigeria. (Tavis, 2017). Supervisors and leaders in workshop lack knowledge to do the job and many have lost their sense of identification (Osuagu, 2006).

Thomas (2013) highlight the factors affecting training and development in Nigeria which includes among others: Programmes were largely in the traditional management areas; The existing western management education and training programme in Nigeria is diffused; Inadequate of research grants and facilities limited the rate and size of management education and training research; The dominant use of foreign resources seemed to accept the concept of interchangeability of management education and training knowledge. Leadership problem in all organization sectors, from public, private enterprises, armed forces, political and religious organization has a negative influence on effectiveness of training and development. Most of them are leaders who say one thing and practice an entirely different thing which has contributed to high level of indiscipline in Nigeria organizations. (Swierrczek & Ha, 2003; Starr & Fondas, 1992 Spender, 2002 ; Stefanovic et al, 2009 ;Spender, 2002; Tavis, 2017; Otokiti, 2013; Ogundele, 2004; Melodi, 2006; Ajonbadi, 2017; Klapper, 2004; Subchat, 2008).

Research Methodology

In this study, SMEs that are registered with SMEDAN in Lagos are used in determining the role Moderating Influence of Training and Development on Entrepreneurial Performance. Survey method was adopted for collection of relevant data. It is a method that focuses on obtaining subjective opinions of respondents. The ex-post facto method which involved the use of secondary data from the internet, journals, articles, and so on was also used (Creswell, 2009). The data collected was used for intensive analysis and conclusion was based on the data collection. For this study Yamane formula was employed. This formula is concerned with applying a normal approximation with a confidence level of 95% and a limit of tolerance level (error level) of 5% (Yamane, 1967).

To this extent the sample size is determined by |
$$\frac{N}{1+Ne^2}$$

Where: n = the sample size

N = population

e = the limit of tolerance

Therefore, n $=$
$$\frac{N}{1+Ne^2}$$

$$= \frac{220}{1+220\,(0.0025)} \quad \frac{220}{220\,(0.05)^2}$$

$$= \frac{220}{1+0.55}$$

$$= \frac{220}{1.55}$$

$$= \textbf{142 respondents}$$

A sample size of one hundred and fourty two (142) SME out of the two hundred and twenty (220) SME population of the selected SME that are registered with SMEDAN in Lagos as calculated above. The test re-test reliability approach was adopted for the convenience of the researcher. The data was analysed using manual and electronic based methods through the data preparation grid and statistical package for the social sciences, (SPSS) statistical package version 21.0. The utilization of structured grids allows specific responses to be located with relative ease and facilitate the identification of emerging patterns (Easterby-Smith, et al, 2011). Also descriptive, statistical and content analyses techniques was employed and the use of statistical tools which include: analysis of variance (ANOVA), correlation efficient and regression analysis in testing hypotheses where applicable. The study made use of Correlation analysis test for the two hypotheses since they are measuring the significant relationships between variables.

Data Presentation, Analysis and Interpretation of Results

Table: 1 Distribution of respondents and response rate

Respondents Occupation	Questionnaire administered (sampled)	Percentage of total response (%)
Supervisory	51	42.1
Managerial	45	37.2
Executive	25	20.7
Total	121	100.0
Gender/Category	**Questionnaire administered (sampled)**	**Percentage of total response (%)**
Male	76	62.8
Female	45	37.2 100.0
No of Returned	121	85.21
No of Not Returned	21	14.79
Total no of Questionnaires	142	100

Source: Field Survey 2018

Data analysis and Hypothesis Testing

Table 2: The Descriptive statistics of Training and Development on Entrepreneurial Performance

Responses		
Ethical Training and Development and Entrepreneurial Performance.	**Total (N)**	**Mean**
You are ready to attend vocational training organized by SMEDAN.	121	4.66
Ethical training and development of SMEs helps to eradicates poverty.	121	3.88
You have benefitted from training organized by SMEDAN	121	3.82

49

Responses	Total (N)	Mean
Ethical Training and Development and Entrepreneurial Performance.		
Ethical training and development play a critical role in the establishment and management of SME.	121	3.89
Ethical training and development have direct impact on entrepreneurial performance	121	3.86
Training Organized by SMEDAN and Employment Creation	**Total (N)**	**Mean**
Vocational training put in place by SMEDAN empowers youth for employment	121	3.77
Employment creation is boosted by SMEDAN organized training	121	3.68
Employment rate reflects empowerment programs by SMEDAN	121	3.49
Employment creation enhances employment growth	121	3.89
Employment creation reduces the level of unemployment	121	3.83
The rate at which Employment is created reflects the rate of empowerment programmes organized by SMEDAN.	121	3.84

Source: Field Survey 2018

Test of Hypotheses and Discussion of Results
Hypothesis 1
H_{o2} Training organized by SMEDAN does not affect SMEs employment creation
H_{a2} Training organized by SMEDAN affects SMEs employment creation

Table 3

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.979[a]	.958	.958	.24385

a. Predictors: (Constant), TRAINING

Source: Field Survey 2018

Table 4

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	161.674	1	161.674	2718.968	.000[b]
	Residual	7.076	119	.059		
	Total	168.750	120			

a. Dependent Variable: EMPLOYMENTCREATION
b. Predictors: (Constant), TRAINING

Source: Field Survey 2018

Interpretation of Results

The results from the model summary table above revealed that the extent to which the variance in SMEs employment creation can be explained by SMEDAN training is 95.8% i.e (R square = 0.958). The ANOVA table shows the Fcal 2718.968 at 0.0001 significance level. Training organized by SMEDAN affects SMEs employment creation.

Table 5

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.144	.082		1.747	.083
	TRAINING	.973	.019	.979	52.144	.000

a. Dependent Variable: EMPLOYMENTCREATION

Source: Field Survey 2018

The coefficient table above shows the simple model that expresses how training organized by SMEDAN affect SMEs employment creation. The model is shown mathematically as follows;

$Y = a+bx$ where y is SMEs employment creation and x is SMEDAN training, a is a constant factor and b is the value of coefficient. From this table therefore, SMEs employment creation = 0.144 +0.973 SMEDAN training. This means that for every 100% change in SMEs employment creation, SMEDAN training contributed 97.3%.

Decision

The significance level below 0.01 implies a statistical confidence of above 99%. This implies that training organized by SMEDAN affect SMEs employment creation. Thus, the decision would be to reject the null hypothesis ($H_{o}2$), and accept the alternative hypothesis ($H_{a}2$).

Hypothesis 2

H_{o2} Ethical training and development does not affect entrepreneurial performance.

H_{a2} Ethical training and development affect entrepreneurial performance.

Table 6

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.968[a]	.937	.937	.29473

a. Predictors: (Constant), ETHICALTRAINING &DEV

Source: Field Survey 2018

Table 7

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	154.721	1	154.721	1781.188	.000[b]
	Residual	10.337	119	.087		
	Total	165.058	120			

a. Dependent Variable: ENTREPRENEURIAL PERFORMANCE

b. Predictors: (Constant) : ETHICALTRAINING &DEV

Source: Field Survey 2018

Interpretation of Results

The results from the model summary table above revealed that the extent to which the variance in Ethical training and development can be explained by entrepreneurial performance is 93.7% i.e (R square = 0.937). The ANOVA table shows the Fcal 1781.188 at 0.0001 significance level. Ethical training and development affect entrepreneurial performance.

Table 8

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	.204	.099		2.047	.043
ETHICALTRAINING &DEV	.949	.022	.968	42.204	.000

a. Dependent Variable: ENTREPRENEURIAL PERFORMANCE

Source: Field Survey 2018

The coefficient table above shows the simple model that expresses how Ethical training and development affect entrepreneurial performance. The model is shown mathematically as follows;

$Y = a+bx$ where y is Ethical training and development and x is entrepreneurial performance, a is a constant factor and b is the value of coefficient. From this table therefore, Ethical training and development = 0.204 +0.949 entrepreneurial performance. This means that for every 100% change in Ethical training and development, entrepreneurial performance contributed 94.9%.

Decision

The significance level below 0.01 implies a statistical confidence of above 99%. This implies that Ethical training and development affect entrepreneurial performance. Thus, the decision would be to reject the null hypothesis (H_o2), and accept the alternative hypothesis (H_a2).

Conclusion

The study has revealed that there is a moderating influence of training and development on entrepreneurial performance. The finding of this paper shows that Training organized by SMEDAN affects SMEs employment creation. Moreover, Nigerian educational system has contributed positively in training and development which has enhanced entrepreneurial performance in Nigeria and this is in accordance with the findings of (Ogundele, 2012).

Furthermore, It was also revealed that the impact of ethical training and development would be more significant if the youths had earlier exposure to it from secondary and all through to their tertiary education which would have reduced or eliminate bad leadership and governance in Nigeria enterprise in general. The study concluded that base on the current requirements of the nation, with its privatization and commercialization exercises, our training and development effort should build self-reliance capabilities because this will ensure desirable behavior that will enhance the success of their organization in the fast changing environment. The study also demonstrate the need of developing global skills in Nigerian executives which will helps them to cope effectively with global competitions; these range from self-reliance, ethics or disciplined behavior, man power development and several others.it was emphasized that Nigeria entrepreneurial need skills that will enable them to adjust appropriately to global demands for effectiveness. Nevertheless, the research also concluded that job experience and skills are more effective than any other instrument.it is important to have appropriate training and development techniques of conferences and seminars and that training ranks lowest among the named techniques in accordance with (Stefanovic, Milosevic & Miletic, 2009). The requirement noted in this paper call for disciplined behavior and ethical conduct of the entrepreneurs. Except people are disciplined and exhibit behavior all training and development efforts will produce little or no results. Our training and development programme should focus on developing creative or innovative individuals who can help to move enterprises forward. A Self-reliant person is a creative individual (Mordi & Ojo, 2013).

Suggested Solution to the Problems of Training and Development Programmes in Nigeria.

Ogundele & Olayemi (2004) suggested that interest in research work should increase in the area of training and development, relevance and functionalism should be criteria for accepting training and development in Nigeria. Increase in research work in the area of entrepreneurial training and development will provide a unique solution to Nigeria entrepreneurial existing problems in the aspects of training and development because it will helps entrepreneurial to define their standard and purpose.

Osuagu (2006) suggested that there should be training in vocational areas to improve functional literacy skills of talented entrepreneurs and youths which should be the responsibility of the local government by establishing trade centres, craft schools and organizing running craft.

The Federal and State government should give both moral and adequate financial supports to research institutes and universities so as to enable them guide the citizens in molding good educational programme for development of our nation. Presently we have over 100 universities with the federal democratic government approval of new universities which form a basis for positive development for the future of Nigeria (Adewunmi, 2014).

Research has indicated that job experience and skills are more effective than any other instrument. It is important to have appropriate training and development techniques of conferences and seminars. Training ranks lowest among the named techniques (SMEDAN, 2012).

Research has also shown that structured and directive styles were found to be more effective of minimizing participant's conflict, increasing effective communications and achieving good cohesiveness. With this it is obvious that there is need for well-structured training programme which will encourage a favorable attitude towards trainer than a less structured trainer style (Ugoji, Mordi and Ajonbadi, 2014)

Managers are not born but made; training and development are concerned with modifying behavior in organisation. There should be Ethical training and development that will have direct impact on behavior modification and societal or organizational set of valued behavior. Ethical education, training and development should be employed as instrument of innovative change in the society which will eradicate or reduce the pattern of fraud at workplace in Nigeria enterprises (Ogundele&Opeifa 2004).

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STRATEGIC HUMAN RESOURCE MANAGEMENT IN GILAN PORTS AND MARITIME ADMINISTRATION

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Abstract

Human resources as the key organizational resources, time efficient effect will be to work with management strategic vision. In a knowledge-based organization, increasing productivity through knowledge management.This is an applied research with descriptive research method and correlational. The statistical population of the province of Gilan Ports and Maritime Administration employees 500 people, In order to determine the sample size, morgan table was used according to which the sample size was calculated to be 220.Descriptive statistics and frequency for Software SPSS16 and inferential analysis of structural equation modeling software, SMART PLS2.0 method is used. The results showed good fit of the model created by the overall fit of 0.64. Load factor higher than 0.4 were obtained for these variables and structures, enjoyed good reliability and validity.

Keywords: knowledge management ,workforce productivity, Strategic Human Resource Management, Employment , human resources Training and development ,Partnership, Performance evaluation,Compensation.

Introduction

In order to compete in the arena of the global economy, knowledge has key and pivotal role, as far as the economy converts into a knowledge economy and the information economy. Knowledge management is one of the most important ways to succeed in the competitive market and this requires recognizing and determining factors and taking scientific action based on such effective factors in different levels of using knowledge management system. The more capable firms which gain knowledge from inside and outside of the firm can reduce uncertainty and discover more opportunities and gain more technical benefits, therefore make more innovation in their products and services.

Knowledge management is an approach which modifies the organizational knowledge and skills to creating value and upgrading the organizational effectiveness. Effective knowledge management, knowledge and facilitate the innovation process and innovation with a view to improve and develop new capabilities. For proper implementation and effective management of knowledge, promote an open culture, participatory and learner role in facilitating knowledge management.

Wong is defined factors for the success of knowledge management activities as actions that should be identified to ensure the success of knowledge management. He adds that the activities or actions, if exists, have to grow up or if not there is still need to apply. These factors should be as internal environmental factors to be treated that can be controlled by the organization, not as an external environmental forces.

Human resources as the key resources of organization will apply with efficiency and more effectively, when it manages with a strategic approach. The strategic approach in

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managing human resources is in the concept of new technics and methods that, organization can rely them against unstable environment to react properly, and mobilize human resources in order to gain competitive advantage.

Strategic human resource management, is a way to decide on the objectives and plans relating the following issues: employment, education, participation, compensation and evaluation of performance. The strategic human resource management also considers relationship management, human resources and strategic management of the company. It also focuses on the needs of human capital and the potential development of the process (ie, ability to perform tasks in an efficient way). Totally strategic human resource management focuses on the major human issue or design strategy of its influence or influenced.

Main body of the article

Japanese researchers managed, Nonaka and Takeuchi have many effects on knowledge management principles. The concept of tacit knowledge and explicit knowledge by Nonaka's theory of organizational learning has been introduced for planning the theory. In this division, due to the convergence between overt and covert forms of knowledge, they have established a model that has become famous in their own name.

Unlike the previous models, focus on two types of explicit knowledge and tacit, to convert methods and focus on making them at all of individual, group and organizational levels. By this dynamic model, the use and transfer of knowledge and how knowledge appears in this field, for spiral (helical) move is as shown in Figure 2 and is assumed to be a continuous process.

Figure 1. Spiral Model of KM Nonaka & Takeuchi
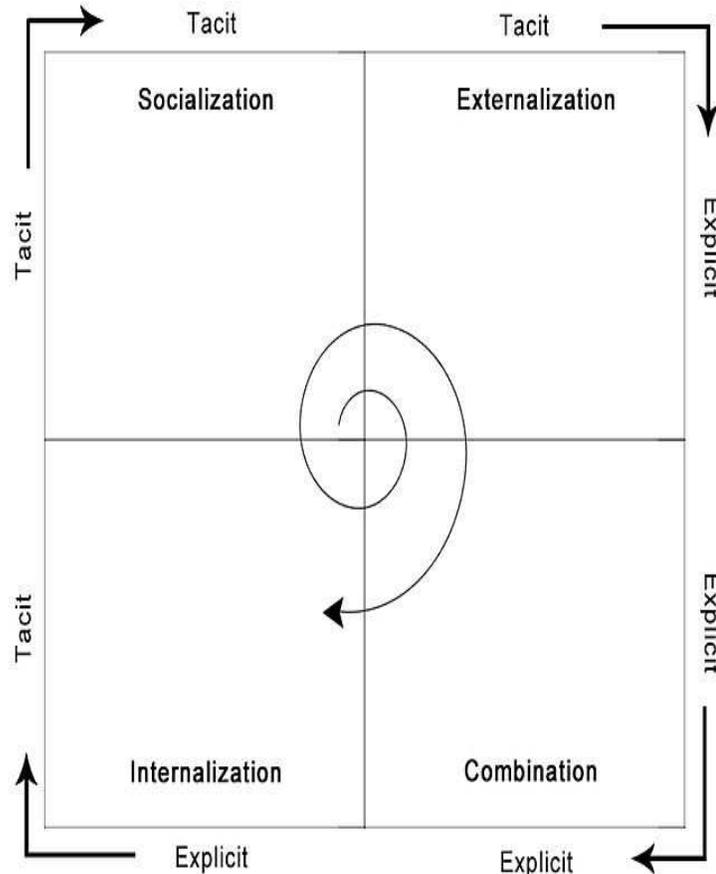
Also in the same thought, it is assumed that only individuals creating knowledge. Therefore, the production process of organizational knowledge, should be a continuous process in which the knowledge generated by people, it is organized, strengthened and guided.

According to Nonaka and Takeuchi model the following steps are to move (convert) these two types of knowledge, at various levels of the organization:

- Socialization (tacit to tacit) transfer intangible knowledge of a person to another person, for the effective conduct of the process between the people, culture and the ability to develop teamwork. Using social theories and cooperation becomes possible. Group discussing experiences, arguing them, is an activity in which hidden knowledge sharing can occur.
- Externalization (tacit to explicit) converts intangible knowledge into tangible knowledge. In this case, the person can convert his knowledge in the form of regular articles, seminars, workshops to provide additional talks between one group, in response to questions or withdraw from the event, including the type of conversion in their ordinary activities occurs.
- Linking (explicit to explicit): In this stage, the movement of individual explicit knowledge, to the group and storage of explicit knowledge is done with regard to the use of existing knowledge, ability to solve problems is provided by group, is developed following by knowledge.
- Internalization (explicit to tacit): In this stage, explicit knowledge gained is established in the organization. Also taking the stage for the people, is also following the creation of new personal tacit knowledge (acquiring tacit knowledge of existing explicit knowledge)

Passing four steps above, should be continuous and with spiral movement, in order to each stage completes the stage prior to it and after the institutionalization of knowledge, generates and creates new knowledge.

It should be noted that, any of the above-mentioned two types of knowledge must be managed in the organization, and also their interaction way, must be recognized, transformed to others, and used. These two types of knowledge, each of which could be another source of creation and at the individual, group and organizational levels must be extended and expanded. In Figure 3, the components forming the four steps shown above.

Workforce productivity:

Hersey and Goldsmith, planed this model to help managers to determine the cause of performance problems and providing strategies for change and solve these problems. They plan to develop this model to analyze human performance in the two main objectives: To determine the causes of fundamental impact on the performance of individual employees and provide these factors so that managers and employees can apply and to remember them.

In Hersey and Goldsmith model, the relationship between employee performance and other variables are as follows:

Employee performance = ability * resolution * organizational support * motivation * motivation * evaluation * validity * environment

Ability: (the power to accomplish a task successfully)

The basic components of ability are the working knowledge related to the job (formal or informal training to facilitate the successful completion of the project) as well as work-related talent.

Resolution: (a clear understanding of how the adoption, location and how to do it)

For the employees to have completed understanding of the problem, major goals and objectives should be, how to achieve these goals and objectives and priorities, and priorities of goals and objectives (which goals, when are of most matters), it must be quite explicit for them.

Organizational support (support that employees need to complete the effectiveness of the work).

Some organizational support factors include: funding, equipment and facilities to do the job right, the necessary support from other organizational units, access to a high quality product and eventually there is an adequate supply of human resources.

Motivation (enthusiasm and willingness to work)

Motivating people to complete more tasks that have internal or external rewards. In the event that the employee has different forms of motivation, the first step is the use of rewards and punishments.

Evaluation (judgment in relation to how works done).

Evaluation is review performance of daily feedback. It allows continuous feedback to subordinates informed of how the job is. The purpose of this kind of feedback is delivering daily performance to his unofficial and official periodical visits.

Validity: (the rule of law and the legitimacy of decision-director)

The appropriateness of the legal and management decisions about staffing shed. Staff decisions should be evidence and performance-oriented based.

Environmental factors are external factors even with ability to clarity, support and motivate for the job, and could impact on performance. Environmental factors include: competition, government regulations, logistics and ...

Strategic Management of Human Resources

If an organization's capital (money, information, facilities and equipment) to be considered, in the case of management, works management is not too hard. But the staff is different. If human forces and their morality be weak, we will not be able to manage the organization.

The importance of human resources for the organization is very high if not so, the entire program of the organization disappears, because the most important part of the organization is workforce which is an asset.

From the perspective of Marin et al, the case on the subject of human resources in the organization is in fact a system of input, output and feedback Process and its subsystems are included:

Employment:

Recruitment process includes finding, evaluating and assigning people for jobs. This has a special impact on the skills and quality of new staff. Disproportion between individuals and organization will hurts organizational performance, while a sophisticated recruitment mechanism, which selects the best people to suit the needs of long-term features, leads the organization to significantly improved. Deligne and Haslid studies on 590 for-profit, nonprofit firms, showed positive relationship between employee and organizational performance is confirmed to be the right choice. The purpose of the "right choice" in human resources management, is that employees and job fit together.

Human resources Training and development:

Organizations can use the comprehensive training and staff development activities, to improve their quality of life. According to studies, training activities on organizational performance impacts in two ways: First, improve the skills, knowledge, abilities and motivation of staffs in relation to their job functions. These programs are also increases employee satisfaction on the job and work environment.

Many empirical studies have confirmed the positive impact of training on individual and organizational performance. For example, Barthel et. al., showed that employees' productivity in manufacturing companies, which have been used employees formal training programs between 1983 and 1986, had 19 % improved. There are many other studies that have confirmed the positive relationship of training and organizational performance.

Partnership:

The purpose of employee partnership, is a variety of methods and activities that take place in the context of the involvement of members of the organization. In Robbins's view, this is a collaborative process that aims to encourage staff members to the commitment and participate in the success of the organization. Finally, employees are picked to comment of more satisfaction with their work.

Performance evaluation:

In Carroll and Schneider's point of view the process of, observing, measuring and improving human performance is identifying in the organization. Every component of this strategy is an important component of the evaluation process.

Identification Component: the process of determining what areas should be focused on, concerned. Identification typically include job analysis as a tool to identify and establish measures of performance rating. Identification determines what should be assessed and investigated.

View Component: It suggests that all relevant evaluation criteria should be considered to the extent that would make the right judgments.

Assessment Component: assessment refers to the center of gravity for assessing and evaluating. Assessor must make a value judgment so as to reflect the performance level of assessing person or thing.

If the performance evaluation process approach done correctly and continuous, the public sector promotes public confidence in the accountability of executive and organizational performance and the efficiency and effectiveness of government. The NGO also promotes resource management, customer satisfaction, contribution to national development, creating new features, stability and the promotion of world-class companies and institutions.

Compensation:

Manager of the organization should think about the welfare of the people and their living conditions.one of the responsibilities of the managers is to pay attention to issues of people life. So, in all organizations for the services and works done by staffs, a reward is considered, as salary. In most of the managerial books, the meaning of compensation is salary: the department of salary is for financial receiving of the employees. (Kuzmits, 1988, p. 305 & Carrell). But some believe that associated with salary for workforces there is a need for some benefits such as opportunities for progress in job, promotion and …, which can have remembered as compensation. Rewardable is referred as any kind of receiving value that an organization may give to its employees in regard of the service or work that he or she have done for the organization. The compensation which organization is providing includes: financial services, and nonfinancial services. (Zarei Matin, 1379, p. 177). In other word it refers to all salary and benefits in cash or credit which are affected by features and job suites and conditions of the work environment, against the services that the employee offers to the organization. Compensation, is in regard to work towards acceptance and motivation for better performance, as a sign of gratitude to those granted to perform organizational tasks.

Conceptual model:

Every research needs a theoretical framework, theoretical framework, is a pattern that one researcher diagnosed on the relationship between the factors that create the theory based on the issue.

Figure 2. conceptual model of the research
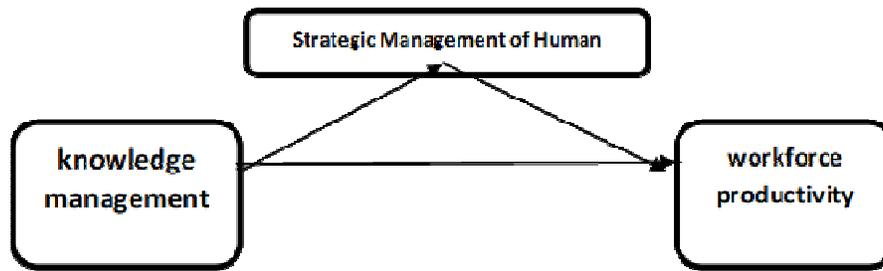
Hypotheses:
The main hypothesis:
There is a relationship between knowledge management and workforce productivity with the role of mediator between strategic management of human resources.

Sub hypotheses:
First: there is a relationship between knowledge management and strategic management of human resources.

Second: there is a relationship between strategic management of human resources and workforce productivity.

Third: there is a relationship between knowledge management and workforce productivity

Research Methodology
This study has practical purpose, and data collection is descriptive and in correlation type. The population of the research includes all employees of Gilan Ports and Navy department included 500 people. Morgan table was used to determine the size of the sample, according which a sample size of 220 was calculated.

A questionnaire with 66 questions prepared that 26 questions were based on knowledge management of Nonaka and Tvkachy (1995), 4 dimensions of externalization, internalization, linking and socialization were assessed. The questionnaire is related to strategic human resource management of Cheng and Huang (2009) which has 15 questions. Which considers assessing five aspects of recruitment, training and developing human resources, participation, evaluation and compensation. The questionnaire related to workforce productivity (Hersi and Goldsmith,1980) with 25 questions that assess 7 aspects of ability, understanding and identification, organizational support, motivation, feedback, validity and adaptation. for descriptive analysis and frequencies, we used SPSS v. 16 and for inferential analysis we used SMART PLS 2.0 software, and the structural equation method was used.

Validity and reliability
AVE score represents the average variance shared between each variable with questions. Simply AVE indicates correlation of a variable with its questions, as the high correlation, represents the more fitting.

According to the table below and Fornell and Larker method an appropriate amount for the AVE (Average Variance Extracted) up to 0.5 have been introduced.

AVE	
0.596	**knowledge management**
0.662	**Workforce productivity**
0.675	**Strategic Management of Human Resources**

Cronbach's Alpha: This standard classical criteria, is considered for assessing appropriate measure for evaluating the reliability and internal consistency. One thing must be said about the reliability of internal structural equation which used to assess reliability, is internal consistency measurement models. Cronbach's alpha values greater than 0.7 indicate acceptable reliability.

Combined Reliability:

Since Cronbach's Alpha is the traditional criteria for determining the variables, Partial Least Squares (PLS) used as modern standard than alpha composite reliability. If the value of the composite reliability for each variable is greater than 0.7 indicate good internal consistency for the measurement models and the score less than 0.6 indicates lack of reliability.

As specified in the table below, the values of these criteria, the Cronbach's alpha and composite reliability of variables in any 3 variables is greater than 0.7, which indicates good reliability for model.

Cronbach's Alpha	Combined Reliability	
0.861	*0.933*	**knowledge management**
0.902	**0.905**	**Workforce productivity**
0.821	*0.963*	**Strategic Management of Human Resources**

Research findings:

Demographic frequency of research questions is presented in the table below

Table 4-1. frequency distribution of Percentage of respondent's age

Age		
Items	fr	p
Less than 25	*24*	*10.9*
25 to 35	*95*	*43.2*
36 to 45	*74*	*33.6*
45 to 55	*27*	*12.3*
Total	*220*	*100*

Table 4-2. frequency distribution of Percentage of respondent's job experience

job experience		
Items	fr	p
Less than 5	*84*	*38.2*
6 to 10	*48*	*21.8*
11 to 15	*61*	*27.7*
16 to 20	*6*	*2.7*
More than 20	*21*	*9.5*
Total	*220*	*100*

Table 4-3. frequency distribution of Percentage of respondent's education

education		
Items	fr	p
Diploma	8	3.6
Associate Degree	6	2.7
BA	81	36.8
MA	125	56.8
Total	220	100

Fitness of structural model

After checking the fitness of the measuring model it is time to checking the fitness of the structural model of the research. As already mentioned, the structural model unlike the measures, does not relates to the questions (the obvious variables) and only tacit variables associated with the relationship between them is checked.

Significant coefficients of t or t-values:

To check the fitness of model several criteria were used for research of that the first and most fundamental criterion, is significant coefficients of t or t-values which are the same values.

**Figure3. The path standard coefficient and t-value**
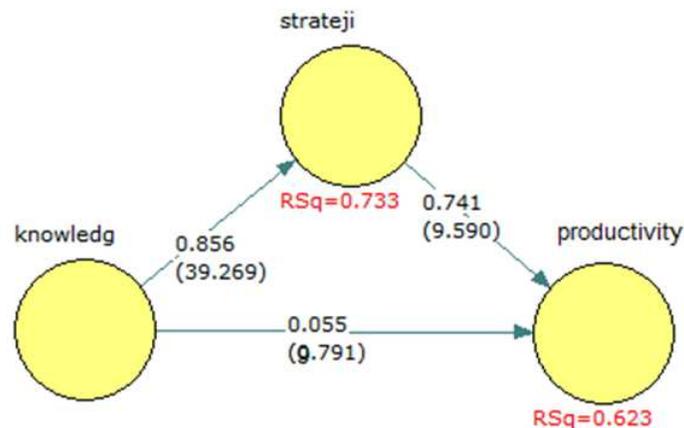
Table (4-4), the standard error and the t-value

	the standard error	T-Value
Strategic Human Resource Management -> KM	0.065	39.269
Workforce productivity -> Strategic Human Resource Management	0.059	9.590
Workforce productivity -> KM	0.086	9.791

The overall model fitness:

• **GOF criteria (Goodness of Fit):**

GOF criteria is related to overall structural equation models. This means that by this measure, the researcher can then evaluate the fitness of the structural measured part of the

overall research model and parts fitting, as well as overall control. GOF criteria by Tenenhaus and colleagues (Tenenhaus et al) was created in 2004 and its formula is as follows.

GOF = 0.642

Communality (shared value) = This value is obtained from the mean squared factor loadings for each variable

Table (4-5) average of R Square and Communality

	R Square	Communality
Strategic Management of Human Resources	0.733	0.538
Workforce productivity	0.623	0.675

GOF =0.642

According to the three values of 0.01, 0.25 and 0.36 introduced as the values of weak, medium and strong for GOF, and acquisitions of 0.642 to GOF, showing a strong overall fit

of the model.

Testing hypotheses

The main hypothesis:
There is a relationship between knowledge management and workforce productivity with the role of mediator between strategic management of human resources.
According to the figure, the coefficient of path is 0.086 and t value is equal to 9.791. Since the amount of T Value is greater than 1.96 can be said that the role of mediator between knowledge management and workforce productivity with strategic human resource management has a significant positive correlation, results confirmed the hypothesis.

Sub hypotheses:
First: there is a relationship between knowledge management and strategic management of human resources.
According to the figure, the coefficient the path is 0.856 and t value is equal to 39.270. Since the amount of T Value is greater than 1.96, we can say there is a positive relationship between knowledge management and strategic human resource management and results confirmed the hypothesis is.

Second: there is a relationship between strategic management of human resources and workforce productivity.
According to the figure, the coefficient of the path is 0.741 and t value is equal to 9.590. Since the amount of T Value is greater than 1.96 can be said there is a significant relationship between the strategic management of human resources with workforce productivity. In conclusion hypothesis is confirmed.

Third: there is a relationship between knowledge management and workforce productivity
According to the figure, the coefficient of the pass is 0.629 and t value is equal to 6.522. Since the amount of T Value is greater than 1.96 can be said that the relationship between knowledge management and workforce productivity is a significant positive relationship and results is confirming the hypothesis.

Conclusion
The results of the current paper shows that there is a positive and significant relationship between knowledge management and workforce productivity with a role of mediating the

strategic management of human resources. Firms which are more capable quire knowledge from the outside of the organization and can reduce the uncertainty, and discover more opportunities and use the technical benefits of it, so make innovations in their products and services. So it is recommended that managers maximize innovative plans and new projects sharing their professions and encouraging their employees, and increase the workforce productivity.

Productivity is not individualized to industrial and manufacturing units. Public organizations which usually serve people also can use their patterns. Productivity plan must cover all parts of organization. And increasing productivity must be continuous.

Managers must motivate their employees in order to increase the productivity of workforce and try to use this ability in the path of organization's goals. Salary, job security, promotion, personal development, working conditions, job attraction and ..., are factors which are important for employees.

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ANALYSIS OF FACTORS SUPPORTING SWOT IN ORGANIZATIONAL STRATEGIC PLANNING

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Abstract:

This study identifies the challenges in strategic planning theory and explores effectiveness in planning practice at the strategic, tactical, and operational organizational levels using field research among employees from the beverage, private healthcare, education, banking, aerospace, telecom, pet, and petroleum industries in Brazil. The results show that all industries practiced the concepts presented in the strategic planning literature, but were deficient in quantitative analysis of the strategic factors that support strengths, weaknesses, opportunities, and threats analysis. Strategic and tactical organizational levels guide the planning process, while operational levels were excluded from strategy-related issues.

Key words: *strategy; strategic planning; tactical planning; operations*

1. Introduction

Strategic management describes the plan as a road map for the organization, requiring a sequence of activities involving different levels of the organization (Varadarajan, 2010).

Strategic planning also has an important role in validating strategy with external stakeholders (Abdallah and Langley, 2014). Perera and Peiró (2012) describe strategic planning as a valid and useful tool to guide all types of organizations.

Strategic planning aims to establish a direction for the organization. The process can be as complex as the plan itself and requires reflection, discussion, interaction, a SWOT (strengths, weaknesses, opportunities, and threats) analysis against competition, drawing up plans, and setting goals and targets (Frezatti, et al., 2011). The plans must define goals, how they will be achieved, the required strategies and resources, and methods to overcome obstacles. The plan should allocate responsibilities and specify the expected return and the timeframe. Such a plan is conceived from an informal desire for some objective (Matos, Venâncio, and Dutra, 2013).

A system of formalized strategic planning guarantees that the priority allocations of time and resources are established and activities are integrated and coordinated with the expectation of an adequate return (Darosi and Anderle, 2014).

Matos, Venâncio, and Dutra (2013) reviewed the strategic planning research from 1997 to 2012 and found that while the topic has been discussed for more than a century, it remains current. However, the literature still lacks tools and practical methods for implementing and controlling the quantitative analysis of SWOT related strategic factors for managers in their daily activities (Lee, et al., 2013).

Analyzing the current knowledge of strategic analysis, established authors such as Porter (2009), and Rajasekar and Al Raee (2013) emphasize the necessity of the five strategic forces to analyze competitiveness. Other authors (Barnes and Liao, 2012; Bowersox, Closs, and Cooper, 2007; D'Aveni, 2010; Hooley, Piercy, and Nicouland, 2011; Mintzberg, Ahlstrand, and Lampel, 2010; Morgan, 2012) emphasized different types of strategic factors. Thus, Morgan (2012), Lee, Kim, and Park (2012), and Morgan and Lee (2012) perceive the need to determine the main strategic factors based on the classics and to quantify these strategic factors by predominance to support an analysis of mainly external factors.

In this way, it is fundamental to think of the strategic factors, such as incoming power, exit power, bargaining power, rivalry of equals, rivalry of substitute products, positioning, supply chain management, and technological innovation (Kluyver and Pearce, 2010, pp.55). Therefore, Singh,

Garg, and Deshmukh (2008) and Lee, Kim, and Park (2012) are strong in affirming the need to create organized and structured frameworks to quantify the strategic factors of competitiveness through research and analysis that allows a view of the different results of the studies through a holistic approach that integrates and presents them in a coherent way. Morgan (2012) reveals that, in addition to allowing greater integration of generated knowledge, quantitative frameworks should also be useful in identifying strategic priority factors for managers' attention.

Lee (2012) developed a method to quantitatively analyze SWOT-related strategic factors that this study will adopt considering the lack of tools and practical methods of implementing quantitative analysis to support SWOT for strategic planning. This study addresses the unique aspects of various industries and the effect of these aspects on management and information transfer related to strategic planning. The study also reveals new appealing options for permanent dynamic planning, monitoring, evaluating, adjusting, and readjusting strategy for a range of business activities. Thus, addresses managers' interest in competitive forces and quantifying them in a structured way to meet their firms' objectives. This study is justified by the lack of literature concentrating on the main strategies or that proposing a strategic management tool to analyze a business sector. Therefore, the study uses Zaccarelli (2012) as a reference guide to create and develop a "business quality methodology." It incorporates Porter's (2009) competitive forces and four other strategic factors advocated by Kluyver and Pearce (2010): international competition, market positioning, adoption of corporate supply chain strategies, and technological innovations as essential elements for an effective sectoral analysis.

In this context, the main objective is to find out if strategic planning is really current, if it is still strongly practiced by the organizations, and if there is a deficiency in the quantitative SWOT analysis by the management. The secondary objective is to contribute a quantitative tool to analyze the strategic factors that support the SWOT analysis and the managers in the strategic decisions. This study collects and organizes the prevalent strategic factors in the literature to use a quantitative method.

In the rest of this paper, sections 2 and 3 present a review of the literature and describe the methodology, respectively. Section 4 reports the results of the research and section 5 proposes a tool to quantify the strategic factors supporting SWOT analyses in organizations. The final section concludes with a summary and discussion of implications and future research directions.

2. LITERATURE REVIEW
2.1 Strategic planning
Strategic planning was considered a new practice in the 1980s, and became popular among goal-oriented and well-organized firms. Planning is a management tool necessary in competitive environments. Over time, inconsistencies have developed between existing theories of strategic planning and their practical application (Phillips and Moutinho, 2014).

Organizations require a structured plan or guide to achieve its goals and desired objectives. Strategy thus describes the path to success within the competitive environment (McHatton, et al., 2011).

2.2 Defining the mission, vision, and values
The mission of an organization is its rationale behind its existence and should reflect the essence of the company (Scorsolini, 2012). If the mission reflects what the company does and its reason for existence, the vision evokes the ultimate goal incorporating the greater scope of the business (Matos, Venâncio, and Dutra, 2013). The firm's values aim to establish a culture of ethics and morality that guide operations. Managers must ask what beliefs and values the organization should adopt to achieve its purpose with respect to the market, collaborators, and business ethics (Varadarajan, 2010).

2.3 Field analysis and SWOT

An industry analysis is a relevant and integral part of strategy development, particularly when the industry has strong national and international competition (Grinstein, 2008). The definition of each competitor in an industry has a direct impact on strategic analysis and serves as the basis for business strategies (Rajasekar and Al Raee, 2013).

The SWOT analysis covers both the internal and external organizational environment: the strengths and weaknesses are related to the internal environment and the opportunities and threats are linked to the external environment (Yüksel, 2012). A strategic organizational analysis is an essential step in the design of a sustainable, competitive business model (Teece, 2010).

2.4 Goals and objectives

Bold strategic planning tackles challenges, and the planning process can achieve clearly defined goals and objectives. The combined elements of challenge, objectives, and time provide organizational targets to meet (Nicoleta and Alina, 2014). Goals are quantitative values to reach at a predetermined point in the future, and organizational effectiveness reflects the degree to which an organization achieves its goals within the time limit. If firms take an excessive amount of time to meet its goals, management should determine one or more intermediate goals to improve monitoring over time (Zheng, Yang, and McLean, 2010).

2.5 Establishing the core strategy

The ability to think strategically is a fundamental requirement for managers of organizations. Leaders must nurture strategic thinking in management practices to sustain planned growth (Rajasekar and Al Raee, 2013). The organization must then be structured to implement the planned strategy (Claver-Cortés, Pertusa-Ortega, and Molina-Azorín, 2012).

2.6 Competitive positioning

A successful product meets customer needs and even exceeds their expectations. However, consumer requirements differ, and companies generally compete to answer these needs by positioning themselves optimally (Varadarajan, 2010).

Organizations can gain a competitive advantage if they are positioned to provide customer value (Doherty and Terry, 2013).

2.7 Implementation of strategic decisions

O'Reilly et al. (2010) find that mid-level leaders should manage employee resistance to improve strategic plan implementations. Managers should help employees understand that the implementation is in their best interest and requires their support. Clarke and Fuller (2010) show that support from leaders at the lowest levels in a hierarchy is crucial to the success of a strategic implementation.

Olson, Slater, and Hult (2005) find that many executives argue that successfully implementing a strategic plan is more important than creating a brilliant strategy because doing is more difficult than planning.

2.8 Monitoring and controlling efforts

Although monitoring and controlling the formal strategic planning process is essential for performance, research shows that strategic planning effectiveness decreases when uncertainty in the competitive environment increases. Klag and Langley (2014) discuss the debate over the effectiveness of formal strategic planning compared with other management styles that are more responsive to the environment. Increasingly, company leaders express the need to change strategic plans to adapt to a turbulent external environment (Dibrell, Craig, and Neubaum, 2014).

2.9 New entrants in the market

According to Degen (2009), all apparently successful business attracts new competitors; if there are no barriers that hinder the entry of new competitors, businesses tend to lose profitability

due to an excessive number of competitors. The lower the financial barrier to enter the market, the easier the entry of new competitors due to the little investment needed (Porter, 2009).

2.10   Consumer bargaining power

Strategic negotiation skills are increasingly indispensable in the business world. Bargaining power represents the position of the negotiator in regards to the relative ability to influence the outcome (Thompson, 2009). According to Porter's second force, consumers can have more concentration in the negotiation, have a different purchase option, and look for lower costs to switch suppliers.

2.11   Supplier bargaining power

The bargaining power of suppliers can directly influence the competitiveness of a market and powerful suppliers may charge more or less based on their current strategic intention (Briggs and Shore, 2007). When the industry is characterized by a low level of competition, suppliers tend to have greater bargaining power over customers (Han, Portinfiel, and Li, 2012). The strategic customers of powerful suppliers will have better options, and the weaker and less strategic customers of these suppliers will face higher prices. Suppliers transfer their costs and charge higher prices of their weakest clients in the market (Porter, 2009).

2.12   Substitute products

A competitive product can replace the main industry product directly or by offering the same value to the customer under better buying conditions (Cecconello and Ajzental, 2008). The competitive intensity among companies may increase if either the new entrants to the business make use of already existing technology (copycats) or they improve on existing products in the market (innovations) (Hooley, Piercy, and Nicouland, 2011).

2.13   Rivalry between current competitors

Porter's fifth force involves an industry competitor's efforts to sustain and improve market share, profitability, and image. Intense rivalry limits the profitability of the industry as a whole (Rajasekar and Al Raee, 2013).

In such a situation, organizations facing intense competition will be unable to compete effectively or survive in the market if they do not develop different strategies to reduce costs. The real challenge is to manage costs because implementing a low cost strategy generally has negative effects on quality (Elgazzar, et al., 2012).

2.14   International competition

Virtually all companies today are affected by market globalization in one way or another. The maturity of many Western markets has in some cases forced the expansion of businesses, seeking to recover lost market share (Cavusgil, Knight, and Riesenberg, 2010). In a global economy, companies in a given sector can become more competitive and productive through the implementation of strategies that include sophisticated investment in modern technologies (Greckhamer, 2010).

2.15   Technological innovation

Technology management has attracted more and more attention from academia and industry (Priem, Li, and Carr, 2009).

The management of technological innovation represents the company's oversight of its activities to select, develop, and market new products aligned with its organizational strategy, which will allow the company to be more competitive and achieve profitable growth in the long term (Kester, et al., 2011). Scholars on the subject of innovation, such as Hitt et al. (2001), Hoskisson et al (1999), and Priem, Li, and Carr (2012), have debated whether technological innovations are driven by the technological advances themselves or rather by the strategies to differentiate the business from competitors and improve market demand.

3. METHODS

3.1 Research methods

We used both extensive literature and exploratory field research to achieve the general and specific objectives in this study. One of this study's objectives is to examine the current strategic planning analyses and to investigate its effectiveness in practice. Literature research is essential to understand strategic planning and the processes involved in the planning methodology in a competitive business environment. The main purpose of the exploratory research in this study is to enhance and advance knowledge of the effectiveness, movement, alignment, and adaptability of strategic planning. The study adopts the traditional model of strategic organizational planning as a reference.

3.2 Sample

The survey-targeted employees from three organizational levels—the strategic, tactical, and operational—with at least four years of administrative experience. The study addresses a number of industries based on their economic value and availability for research purposes, namely: private health, private education, beverage, telecom service, oil, and banking.

3.3 Industry definitions

The telecommunications industry is highly competitive with substantial economic and financial activity. The five largest companies in this industry in Brazil are currently Vivo, Oi, TIM, Claro, Embratel, and Ericsson, comprising 98% of the market, that strategically compete for market share in mobile telecommunications and Internet services, but not in landline communications. Additionally, this industry in Brazil has received 32 billion dollars in investment to improve coverage and reduce costs (Alencar, 2011).

- Managers in the private healthcare industry have adopted strategic planning in a significant number of institutions to improve competitiveness and have a positive impact on the development of business processes. (De Oliveira and Schilling, 2011).

- The survey in the beverage manufacturing industry was sent to Heineken/Femsa. The industrial sector of drinks as well as being responsible for the production of beers, soft drinks, and juices, is also responsible for generating a parallel market for recycling materials (Almeida, et al., 2016).

- There is much more to the industrial sector of pets than the ones dogs and cats. Pet owners today do not limit your connection with animals and buy toys for the iguanas, buy medicines for turtles, decorate your fish tanks and buy food for these pets (Tortola, 2007).

- Petrobras, an oil and gas organization engaged in exploration and production; refining, commercialization, and transportation of oil and natural gas; petrochemicals; distribution of derivatives (Barros, 2014).

- The Brazilian Banking sector was the most profitable. The results show superior performance of large banks (Tecles and Tabak, 2010).

- The Brazilian aerospace company better known as Embraer, finished third in the overall ranking executive jet units sold worldwide in 2010 (Fred, 2011).

- Private educational institutions. In 2010, the three largest higher education institutions listed on the stock exchange were worth 7 billion reais (Borges, Domingues, and Cordeiro, 2016).

3.4 Data collection instrument

The data collection instrument was developed according to the strategic planning structure suggested in the literature. A questionnaire composed of 18 questions collected responses based on a Likert scale administered to participants. The final sample consists of 205 responses, a 50% response rate.

4. RESULTS

4.1 Sample characteristics

The survey targeted large companies within their respective industries, which are highly competitive and have substantial economic and financial activity. The 102 responses represent a cross-section of company departments: strategic (15%), tactical (25%), and operational (60%).

4.2 Field research results

Involvement in strategic planning. The majority of respondents, 68.1%, claimed to be involved in strategic planning. Those at the strategic level have extensive involvement with planning. Respondents with no involvement in strategy increases as operational employees represent a significant portion of the respondents at 16.2%. Additionally, some pet industry professionals are indifferent to their involvement with planning.

Knowledge of company missions, values, and visions. The results related to knowledge of the company's mission, vision, and values. A vast majority of respondents, 99%, responded that they understand the mission, vision, and values of the company's strategic plan in detail, indicating that these have been well disseminated among staff.

Knowledge of strategy deployment. The results related to respondents' knowledge of the deployment of the organizational strategy. Most respondents (78%) indicate that they understand how their companies deploy strategic plans. Some respondents from the cooperative banking sector stated strategic plans are deployed casually, and not as described in company literature. Respondents in the education and aerospace industries responded that strategy deployment is top-down in nature and the operational departments do not have a sense of connection with the deployment. Some respondents add that the executive leadership does not effectively disseminate the strategic plan information to the lower hierarchical levels.

Knowledge of activities and alignment. The results relate to respondents' knowledge of the company's activities and alignment capacity for strategic planning. Most respondents, 70.3%, indicated that they understood the company's capacity for activities and alignment regarding planning. The results show that some officials "do not know" or are "indifferent" about the company's ability to plan and align activities. The 30.2% of respondents expressing this opinion all work at the operational level. This suggests that high value employees at the operational level are indifferent to strategic planning, signaling that the strategic and tactical levels do not effectively spread the planning throughout the organization.

Ongoing management, monitoring and planning evaluation. The results related to company performance related to ongoing management, monitoring, and evaluation of the strategic plans. The majority of respondents, 73.3%, responded that they understood how the company operates in terms of managing, monitoring, and evaluating the strategic plan. The results show that up to 26.7% of employees "do not know" or are "indifferent" to management's monitoring and evaluation of planning. While this is significant, the employees with this opinion work at the operational level.

Competitor reaction scenarios. The results related to respondents' opinions of company adaptations to competitors' reactions to the strategic plan. Less than half of the respondents, 46%, indicated that they have knowledge of the analysis of competitors' reactions to their company's strategic plan. However, the majority, 54%, "do not know" or are "indifferent" to the analysis of the reactions of competitors, and all of these employees belong to the operational level.

Actions related to challenges, opportunities, and agile plan management. The survey results concerning company actions in terms of challenges, opportunities, and the strategic plan management. Most respondents, 72.8%, are aware of their companies' challenges, opportunities, and strategic plan management. A considerable number, up to 28.5%, are "indifferent" or "do not know" this information.**Supply chain management in**

planning. The results related to the alignment of supply chain management with strategic planning. Most respondents, 65.9%, stated that they had knowledge of supply chain management in their company's strategic planning. Significantly, 34.1% "do not know" or are "indifferent" to this knowledge.

Analysis of the competitive environment. The results related to analysis of the competitive environment as part of strategic planning. The majority of respondents, 69%, stated having knowledge of the analysis of the competitive environment in their company's strategic planning. At the operational level, up to 31% were "indifferent" or unaware of their company's competitive environment.

Top management belief that success is linked to leadership commitment.

The results related to top management support in strategic planning. Most respondents, 63.3%, reported that top management provides support, and they believe that successful planning is linked to leadership commitment within the company. Strategic-level employees consider their support from the operational level is linked to strategic planning success, though the operation level did not share this perception. A substantial percentage of operational-level respondents do not believe that strategic planning success is linked to leaders' support and commitment. The results were equivalent among employees of the same level, even when they were from different segments. An interview with director of Petrobras confirmed that the strategic level of the organization has total involvement with strategic planning throughout its process. The results demonstrate that managers do not have and do not use a quantitative method of analyzing the strategic factors that support the strategic planning SWOT.

4.3 Quantitative Analysis Method For Strategic Factors To Support Swot

The strategic factor evaluation method is a quantitative field research tool to obtain greater accuracy as to the value of each competitive factor and to advance the analytical knowledge of organizational strategic planning. Scores vary from 1 to 5 and are used to evaluate aspects related to the final average composition for each competitive factor. A value of 1 means that the strategic factor is low in intensity or may even reflect a strategic vulnerability to the business. A value of 5 means that it is a strong factor. This guide will help managers quantify the composition of each strategic factor, the values of which will depend on field research.

Table 1. Quantification of Entrance Barrier Factor

	Related terms	Aspects of each strategic factor
1	Investment	The greater the investment, the greater the difficulty of new competitors, the higher the score.
2	Strong brand	Acquiring renowned brand facilitates the entry of new competitors. The larger the user, the lower the score.
3	Bureaucratic rules for entry into business	The easier the solution to the bureaucracy, the greater the ease of entry of new competitors. The more bureaucratic the business, the higher the score.
		End result: average

Source: Porter (2009, pp.4), Zaccarelli (2012, pp.232).

Table 2 shows the method of evaluating the competitive output barrier strategic factor.

Table 2. Quantification of Exit Barrier Factor

	Related terms	Aspects of each strategic factor
1	Number of competitors	A high number of competitors in a sector may hinder sales. The lower the competition in the industry, the higher the score.
2	Investment recovery time	The easier the recovery of investments, the higher the score.
3	Financial difficulties in company closure	The lower the difficulty of assuming costs, the higher the score.
		End result: average

Source: Porter (2009), Zaccarelli (2012).

Table 3 shows the measurement of the market positioning strategic competitive factor.

Table 3. Quantification of Market Positioning Factor

	Related terms	Aspects of each strategic factor
1	Large number of competitors in the same position	The greater the number of competitors in the same position, the lower the score.
2	Best current position in relation to competitors	The score should be higher.
3	High potential to meet positioning	The score should be higher.
		End result: average

Source: Hooley, Piercy, and Nicouland, (2011, pp.148).

Table 4 presents the measurement of the customer power in business strategic competitive factor.

Table 4. Quantification of Customers' Trading Power Factor

	Related terms	Aspects of the composition of customers' bargaining power factor
1	Customer choice options	The fewer the companies, the lower the customer's negotiating power because of lack of options. The fewer the customers' options, the higher the score.
2	Companies with short deadlines for negotiation	Companies' products have short trading time frames or cannot be stored, and the corporation is in the position to negotiate quickly, which is bad for the business. The more the company can negotiate quickly, the lower the score.
3	Low purchasing power of client	The entrepreneur is in a good situation if the customer's power is weak in relation to the selling company. The customer cannot afford to impose terms. The weaker the customer's power, the higher the score.
		End result: average

Source: Porter (2009, pp.4), Zaccarelli (2012, pp.236).

Table 5 shows the method of evaluation of the strategic factor of rivalry of equals.

Table 5. Quantification of Rivalry Factor

	Related terms	Aspects related to the current rivalry factor
1	Balance in competition	The more balanced the competitors, the greater the competition and the less attractive the business. The more balanced the competition, the lower the score.
2	Stagnant market	Stagnant markets and slow growth tend to produce more competition. The higher the stagnation or the slower the growth, the lower the score.
3	Overhead costs	High fixed costs in relation to net income signal increased competition in the sector. The higher the costs of profits, the lower the score.
		End result: average

Source: Hooley, Piercy, and Nicouland, (2011, pp.84), Zaccarelli (2012, pp.234).

Table 6 illustrates the measurement of the rivalry with international products strategic competitive factor.

Table 6. Quantification of Rivalry among International Products Factor

	Related terms	Aspects related to the rivalry with international products factor
1	Natural and technological resources	Natural and technological resources are factors for development. If the features and enhancements are unique, the higher the score.
2	Delivery time	The longer the delivery time for international rivals' products, the higher the score.
3	Relationships with channels and representatives	Success in international transactions is dependent on strong relationships with distribution channels and sales representatives. The better those relationships, the higher the score.
		End result: average

Source: Cavusgil, Knight, and Riesenberg (2010, pp.55), Hooley, Piercy, and Nicouland, (2011, pp.86).

Table 7 shows the measurement of the supplier's bargaining power strategic competitive factor.

Table 7. Quantification of Suppliers' Bargaining Power Factor

	Related terms	Aspects related to the supplier's bargaining power factor
1	Many suppliers and few buyers	The fewer the vendors offering similar conditions to a small number of competing buyers, the higher the score.
2	Payment term supplier	If suppliers' payment terms are short and make it hard to close the deal, the firm's negotiation power will be low. The lower the company's power, the lower the score.
3	Delivery time supplier	The more the supplier sells to its rivals and has short-term delivery, the lower the score.
		End result: average

Source: Kluyver and Pearce (2010, pp.55), Porter (2009, pp.4); Zaccarelli (2012, pp.236).

Table 8 shows the method of evaluating the supply chain management in relation to competitors' competitive strategic factor.

Table 8. Quantification of Supply Chain Management Factor

	Related terms	Aspects related to the management of the supply chain factor
1	Inventory costs	The lower the inventory costs relative to competitors, the better the contribution margin. The lower the costs of stock, the higher the score.
2	Suppliers' delivery time	The shorter the delivery time from suppliers and the exact amount needed by the company in relation to its competitors, the higher the score.
3	Transportation costs	Transport costs can provide a competitive edge over competitors. The lower these costs, the higher the score.
		End result: average

Source: Calixto, Formigoni, and Stettiner (2011); Hooley, Piercy, and Nicouland, (2011); Kluyver and Pearce (2010, pp.77).

Table 9 shows the measurement of the technological innovations management relative to competitors' strategic competitive factor.

Table 9. Quantification of Technology Innovation Factor

	Related terms	Aspects related to technological innovation factor
1	Development time	The shorter the time needed to develop and market new products relative to the competition, the higher the score.
2	Frequency of new product launches	Frequency in product launches may contain the competition and create or maintain market leadership. The higher the frequency, the higher the score.
3	Innovation cost	The costs of innovation should be lower than those of competitors. If cost is reduced, the score increases.
		End result: average

Source: Porter (2009, pp.22); Hooley, Piercy, and Nicouland, (2011, pp.263); Kotler and Armstrong (2011, pp.56).

The data obtained and compiled from the field research provide the scores by which administrative priorities may be established.

5. CONCLUSION

Contrary to authors positing that strategic planning is no longer valid, the field research in this study, in addition to the considerable amount of recent literature, shows that strategic planning occurs in practice in 100% of the industries surveyed.

Reflection, discussion, interaction, internally assessing strengths and weaknesses, analyzing the market opportunities and competition, developing plans, and setting goals occurs with greater intensity among the strategic and tactical levels, with less involvement from the operational levels. However, the vast majority of professionals at all hierarchical levels, with the exception of a small proportion of professionals at the operational level, consider themselves to be involved in strategic planning simply by understanding the company mission, vision, and values. In terms of deployment strategies and monitoring and aligning plans, a considerable number of operational-level respondents claimed no knowledge of these strategies. The lower the hierarchical level, the lesser respondents understood strategic planning management as a day-to-day practice in the organization.

Operational-level employees, for the most part, were not aware if their company analyzes the competitive environment based on strategic planning. However, this varies by company. The Heineken/Coca T Cola Company has a team dedicated to strategic planning, which shares the company status with all employees at the operational level, including its evolution and monthly targets to involve all employees in the strategy process. In another example, Embraer in Brazil conducts training with employees of all levels who have an interest in learning more about strategic planning.

One notable result from this study is that a large percentage of employees "do not know" of or are indifferent" to strategy management in terms of the supply chain, which is concerning because efficiently managing the supply chain is a main source of competitive advantage for today's companies.

Additionally, successful implementation of a strategic plan is linked to the commitment of company leadership, but respondents at the operational level and a small number of respondents at the tactical-level indicated that they do not believe leadership conducts planning deployment in a manner that is clearly communicated to all involved. Respondents from the aerospace industry reported that many employees do not have correct knowledge about strategic planning, which causes misalignment and compromises the final result. The research results show equivalent responses among employees at the same levels and departments, even when they represent different industries.

The article is relevant to engineering managers because it presents a breakthrough in quantitative SWOT analysis. In addition, managers also struggle to understand how forces and opportunities influence the company in a positive direction and how weaknesses and threats influence the company negatively.

All organizations can and should assist in strategic planning because this approach remains current, and could be improved. Field research results suggest that strategic and tactical levels need to improve the dissemination of strategic planning among employees. Another deficiency found was in the bibliographic research on the current SWOT analysis to be very qualitative and this article brings a contribution and an advance where pointing a tool of quantitative market analysis of the strategic factors that support the SWOT analysis, giving, yes, better conditions of Strategic actions of managers. Future studies could create and develop management tools to improve the alignment of strategic planning between all organizational levels.

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THE CHALLENGES OF SMART SPECIALISATION IN THE LESS DEVELOPED REGIONS

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Abstract*:

Smart specialisation is an industrial and innovation framework for regional economies that aims to illustrate how public policies, framework conditions, but especially R&D and innovation policies can influence economic, scientific and technological specialisation of a region and consequently its productivity, competitiveness and economic growth paths. At the European Union level, smart specialisation has become a flagship policy and the EU has translated the principles of smart specialisation into operational elements of regional innovation strategies (RIS3) and has claimed for differentiated approaches for the less developed territories that are far from the technology frontier and lack the critical mass for R&D. Within this context, the purpose of our study is to explore the challenges related to smart specialization in the less developed regions and to shed light on the most recurrent policy recommendations that are responsive to their specific needs.

Key words: smart specialisation, R&D, innovation, less developed regions

JEL classification: O3, O4, R1

1. Introduction. Smart specialisation introduced

The financial crisis that started in 2008 with the collapse of the Lehman Brothers investment bank highlighted the vulnerabilities of the banking system, as well as of the entire world economy. There have been multiple questions about the systems development and their sustainability. With these questions, a number of responses and concepts have been formulated, with the "smart specialisation" being among the most successful ones both in theory and practice. At the European Union level, Dominique Foray, a key member of the "Knowledge for Growth" Working Group introduced the basic concept of "smart specialisation" and highlighted its main rationales, i.e. "to encourage investment in programs that will complement the country's other productive assets to create future domestic capability and interregional comparative advantage" (Foray et al., 2009, p. 1). Since 2009, there have also been discussions at the OECD level on smart specialization in the context of the "New Industrial Policy", "New Sources of Growth" and "New Approaches to Economic Challenges. In this regard, the OECD decided to revisit the financial, economic and social policies frameworks, so as to make them more competitive, more social and more protective (to "go structural" to make economies more competitive; "go social" to address the increased inequality and lack of jobs; to "go green" to promote a growth path that takes due account of environmental constraints; and to "go institutional" to address the current confidence gap in institutions and markets) (OECD, 2013).

From its very beginnings to date, the smart specialisation has evolved into "the most ambitious regional innovation programme ever launched in the European Union" (Morgan, 2017), which is very likely to continue and be further strengthened in the post-2020 framework. Less developed regions are deemed a special attention in the context of smart specialisation, in an attempt to foster their research and development capacities (R&D), improve the framework conditions for business to innovate and finally drive smart, sustainable and inclusive growth. Here below are the some of the key milestones in the development of smart specialisation approaches at the European level, with an emphasis on the case of the less developed regions:

1) In 2010, Europe's 2020 Strategy (EC COM(2010) 2020) coined the "smart growth" concept, based on knowledge and innovation, as one of the three key priorities for Europe in the next decade. Economic, social and territorial cohesion are laid at the

heart of the Europe 2020 strategy and the proposed targets are relevant to all Member States ("old and newer alike"), to tackle disparities in the levels of development.

2) The Flaghsip Initiative "Innovation Union" (EC COM 2010 546) highlighted the need for all regions in Europe and every Member State to reform the national R&D and innovation systems and redirect funding based on a smart specialization approach. In order to be used more effectively, the European Structural Funds should be directed towards the areas with relative strengths and provide incentives for cooperation between the leading and the lagging regions, so as to spread the innovation all across the Union.

3) The concept of smart specialisation has been also promoted by the Communication on "Regional Policy contributing to smart growth in Europe 2020" (EC COM 2010 533 final) that encourages national and regional governments to develop smart specialization strategies (RIS3) so as to maximize the impact of Regional Policy and Structural Funds. The European regions are thus expected to close the "innovation divide" and mobilise the full innovation potential of both advanced regions ("to remain ahead") and the lagging ones ("to catch up").

4) In 2011, the Smart Specialisation Platform (S3 Platform) was established at the European Commission's Joint Research Centre (JRC) to provide information and support to policy makers engaged in smart specialization processes and to promote mutual learning. The JRC offers targeted support to the implementation of RIS3 is a number of selected low-growth and less developed regions in EU member states ("RIS3 in lagging regions") and facilitates peer-reviews and cooperation on smart specialization between all the European regions.

5) In 2012, the European Commission released the "Guide to Research and Innovation Strategies for Smart Specialisation" (RIS3) providing detailed orientations on how to develop research and innovation strategies for smart specialization (Foray et al., 2012). In 2013, the OECD's Working Party on Innovation and Technology Policy published the report on "Innovation Driven-Growth in Regions: The role of smart specialisation" (OECD, 2013) providing additional evidence on smart specialization and its underlying concepts and on findings of different case studies.

6) The EU Regulation No 1303/2013 of the European Parliament and of the Council of December 2013 laying down common provisions of the European Funds for the 2014 – 2020 financial framework defines the smart specialization strategies as "the national or regional innovation strategies which set priorities in order to build competitive advantage by developing and matching research and innovation own strengths to business needs in order to address emerging opportunities and market developments in a coherent manner, while avoiding duplication and fragmentation of efforts" (Article 2(3)). The existence of a RIS became an ex-ante conditionality for the thematic objective 1 (Strengthening research, technological development) and for Cohesion policy research and innovation investments for the programming period 2014 – 2020. Article 90 defines the less developed regions as those regions as those regions whose GDP per capita is less than 75% of the average GDP of the EU countries.

7) In 2014, the "Stairway to Excellence" (S2E) pilot project started, to help the less developed Member States and regions to address the innovation gaps and the so-called regional innovation paradoxes. The project supports the less-developed EU13 Member States (i.e. that joined the EU after 2004) to better understand the local innovation context and find synergies between Horizon 2020 and the European Structural and Investment Funds.

8) A new Communication was issued by the European Commission in 2017 - "Strengthening Innovation in Europe's Regions. Towards resilient, inclusive and

sustainable growth at territorial level" (EC SWD 2017 264 final), whose aim was to assess the state of play as regards the design and implementation of smart specialization strategies in the EU and to examine its contribution to the reform of the European research and innovation systems.

9) The Lagging regions report - "Competitiveness in low-income and low-growth regions" (EC SWD 2017 132) - published by the European Commission in 2017 was meant to analyze the investments needs in the European lagging regions and to suggest possible solutions to boost growth and increase income in these regions. In this context, the role of the smart specialization strategies in helping the lagging regions to overcome the main obstacles that limit growth was emphasized.

10) In 2018, the World Back issued the "Rethinking Lagging Regions" report to highlight the nature and implications of regional disparities in Europe and the horizontal policy priorities for Cohesion Policy (Farole et al., 2018)

11) "A renewed European Agenda for Research and Innovation" (EC COM 2018 306) was issued by the European Commission in 2018 emphasizing the need to accelerate innovation in less developed regions and to foster the strategic coordination across different EU funding schemes, i.e. Horizon Europe Programme, InvestEU Fund, the European Regional Development Fund, the European Social Fund, the Erasmus+ Programme, the Digital Europe Programme, the Common Agricultural Policy and other programmes.

12) Foray's et al. report published in 2018 re-evaluated the raison d'etre and the achievements to date of smart specialization and discussed the challenges of RIS3 design and implementation, while suggesting how regional and R&I policies might be better integrates.

In this context, the purpose of our paper is to review the before-mentioned studies and official documents and to shed light on the challenges of smart specialization in the less developed regions of the European Union.

2. Conceptual framework

In order to collect evidence on the proposed topic, we have created a conceptual framework that considers the key actors and the key features of smart specialisation, based on the guidelines provided by the European Commission and the OECD. As it results from the Table no. 1, smart specialisation involves the adoption of multiple and consistent actions to achieve the desired results. The strategies for smart specialisation (RIS3) should focus simultaneously on research and innovation activities, the key actors involved in "discovery" processes, i.e. the academia, the companies, the government, the civil society, the national/regional government policies, and, of course, the European Cohesion policy. In an ideal model, RIS3 strategies are expected to do five important things: focus policy support and investments on key (limited) priorities for knowledge-based development, build on each country's/region's strengths, support technological and practice-based innovation, get all the stakeholders fully involved and include sound monitoring and evaluation systems (Foray et al., 2012).

Table no.1

Key actors and features of smart specialisation

Actors & features	Description
R&D and innovation activities & smart specialisation	**R&D and innovation activities** stay at the heart of smart specialisation, which is a "knowledge-based" policy agenda. The activities that could benefit from certain R&D and innovation projects, not the sectors they belong to, are the natural candidates for

priorities	prioritisation. Developing and matching research and innovation strengths to business needs is crucial to smart specialisation.
Firms, entrepreneurs & (global) value chains	The initiative to identify the paths towards the smart specialisation belongs to the enterprises, not to the state. Businesses play a leading role in the **entrepreneurial discovery processes.** Private sector investments in research and development are stimulated. Internationalisation and integration into (global) R&D networks and value chains are highly valued.
Universities, research organisations, knowledge intermediaries	Along with the research institutes and knowledge transfer organisations, the universities create the knowledge generation and diffusion subsystem and have important roles in smart specialisation. All the three missions of universities are emphasized (i.e. teaching, research and community development), but the focus is on universities' regional engagement.
Government, formal and informal institutions, multi-level governance	Good formal and informal institutions are a prerequisite for effective design and implementation of smart specialisation strategies. Shared leadership, trust, professionalism, transparency, partnership, responsibility are key drivers of success. Quadruple Helix partnerships and multi-level governance are key issues in smart specialisation.
Regions, structural conditions and Cohesion policy	RIS3 is a **place-based** economic transformation agenda. Each region is invited to *differentiate* itself depending on its structural conditions and its specific capacities. Regional "embededness and relatedness" are crucial to smart specialisation. The RIS3 approach is also consistent with the aims of the EU cohesion policy.

Source: own adaptation based on the RIS3 Guide (Foray et al., 2012), OECD (2013) and the RIS3 Platform

Based on this conceptual framework and starting with the policy papers mentioned in the Introduction, we have conducted a literature review that considered the papers published after 2014 and having in their title or abstract the concepts of "smart specialisation" (RIS3) and "less developed regions" ("lagging regions", "peripheral regions", "cohesion regions" etc.). We used the cross-citation method that led us to the identification of the relevant studies for our purpose, based on which we collected evidence on challenges and policy recommendation for the less developed regions.

3. Challenges of smart specialisation in the less developed regions
#### 3.1. R&D and innovation activities and smart specialisation priorities

Research and innovation represent the key element in ensuring progress, with R&D providing the premises of innovation. Research is systematic investigation (observation, experiment, critical thinking), which aims to increase knowledge and reach new conclusions (Iatridis and Schroeder, 2016), while innovation, on the other hand, is a more specific concept and more closely related to business and industry. It can be described as a process of using information and existing phenomena to improve human lives by creating better products, services and technologies that are readily available to markets, governments and society (Stahl, 2013). R&D and innovation activities stay at the heart of smart specialisation and the RIS3 strategies are called to identify those activities – not sectors – that could benefit from research results and innovation projects. The natural candidates for prioritisation are the activities that "show potential", i.e. are new, aim at experimenting and discovering new market opportunities and could provide learning spillovers to others in the economy (Foray

and Goenaga, 2013). In his respect, the existing R&D potential at the level of the EU regions is crucial as, undoubtedly, the regions concentrating strong research units, technological clusters and innovative start-ups are in a more advantaged position.

In practice, the geography of innovation is very diverse and there are large discrepancies in terms of research, development and innovation potential at the regional level in the European Union. The European Regional Innovation Scoreboard (Hollanders and Es-Sadki, 2017) shows that innovation excellence at the EU level is concentrated in relatively few European areas, while the most innovative regions being located in the most innovative countries. As such, as long as there is a close correlation between R&D performance and economic performance, the economically disadvantaged regions are also lagging behind in terms of research, development and innovation (Figure no 1.).

Fig. No.1

Regional Innovation Performance Groups at the EU level
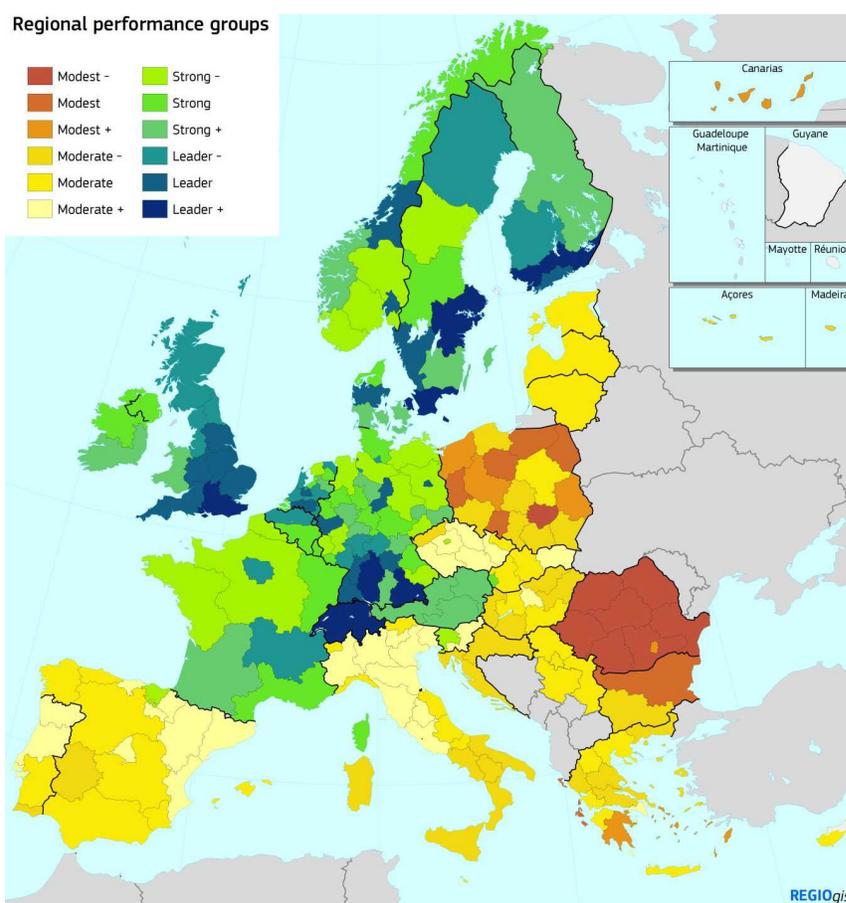
Source: Hollanders and Es-Sadki (2017)

Modest and moderate innovators have a low exploitation capacity due to a weak absorptive capacity, the dominance of medium-low and low-tech industries (that is industries with at maximum 2% of the turnover invested in R&D) and the low educational level of employees (Asheim, 2018). In many lagging regions, R&D is mainly public, accounts for a lower share of GDP than in the EU as a whole (EC SWD (2017) 132) and suffers from large fragmentation and lack of relevant research and innovation infrastructures (EC SWD 2017 264 final). Lagging regions have very low levels of participation in the European Framework Programmes, which is to a large extent explained by the bottlenecks related to the quality of

governance, capacity building and poor innovation and commercialization capabilities (Ozbolat and Harrap, 2018).

Apart from being lagging behind in terms of research, development and innovation, the less developed regions are also faced with the so-called *regional innovation paradox* that refers to "the apparent contradiction between comparatively greater need to spend on innovation in lagging regions and their relatively lower capacity to absorb public funds for the promotion of innovation" (Oughton et al., 2002). The policies supporting R&D in the less developed regions have created the so-called "pockets of excellence", which are defined as "local or regional research or innovation eco-systems, in countries with an overall weaker RDI system, which prove capable of driving regional growth and of linking up to top-European research networks" (Reid et al., 2016); yet, in many cases, the "pockets of excellence" are disconnected from local economies (Tsipouri, 2017) or are only "enclaves" linked externally to other "pockets of excellence", with limited or non-existent local knowledge spillovers (Reid et al., 2016).

The policy recommendations for addressing R&D and innovation deficits in the less developed regions can be summarized as follow:

- focus on "co-invention" of applications – not only on the invention of the general purpose technologies – to address quality and productivity issues in a number of few important sectors in the regional economies (Foray and Goenaga, 2013);
- identify the "pockets of excellence" in the lagging regions, connect them to local economies and concentrate the resources in promising activities; in those regions where there are no "pockets of excellence", it is better to focus on horizontal innovation support, improvement of local human capital and support to transborder technology transfer and non-technological innovation (Tsipouri, 2017);
- innovation should not be confined to high-tech and cutting-edge research and R&D-intensive sectors; incremental innovation (engineering process & product), production capability (quality), management practices and informal innovation should be also considered; the low-tech and tranditional sectors – i.e. agri-food, tourism, textiles etc. should be also targeted, especially through incremental innovation (Foray et al., 2018);
- adopt the broad-based innovation and the "learning region" strategies to promote smart specialisation in the less developed regions, where all the drivers of innovation – i.e. users, markets, demand, social innovation, employee-driven innovation are integrated into an overall apprach (Asheim, 2018);
- create synergies between the European Structural and Investment Funds and Horizon 2020 in support of innovation, open up and internationalize the RDI systems and mobilize the EU instruments in conjunction with the national & regional policy interventions (Pontikakis et al., 2018).

3.2. Firms, entrepreneurs and global value chains

In the process of research, but especially in innovation, the firms have a key role to play, as they are the ones that turn R&D into innovation and then into economic performances. For these reasons, the "entrepreneurial discovery process" (EDP) is one of the hallmarks of smart specialisation and the entrepreneurs play leading roles in discovering promising areas of future specialisation (Foray et al., 2009). According to Foray et al. (2011, p. 7), "entrepreneurial knowledge involves much more than knowledge about the science and techniques", it rather combines and related to knowledge about market growth potential". Therefore, both the development process and the content of smart specialisation strategies are determined by the business and entrepreneurial composition in the Member States and their regions (EC (SWD) 2017 132).

In the most advanced regions, the firms are supposed to hold the entrepreneurial knowledge in the regional economies; yet, in the case of less developed regions, where the industry structures and entrepreneurial capabilities are weak, the necessary knowledge could be activated from universities or public research institutes; as such, the entrepreneurial actors category can be understood in a broad sense and include "whoever is best placed to discover the domains where " (Foray et al., 2012, p. 12).

According to Blazek et al. (2014), three key weaknesses characterize the economies of regions with less developed research and innovation systems, i.e. 1) the widely prevalent branch-plant syndrome of the economic base, which translates into low R&D activities and limited autonomy when dealing with actors outside the firm; 2) the weak endogenous SMEs sector and the low level of entrepreneurial culture; and 3) the locking-in of many companies in these regions as lower-tier suppliers in global value chains and global production networks. As pointed out by McCann and Ortega Argiles (2015), lagging regions often exhibit weaknesses in entrepreneurship and innovation due to a combination of reasons, i.e. sectoral, structural, transactional, technological, behavioural, related to financial flows, externalities, issues of market failures, issues of commercial and cultural perceptions etc. In addition, firms in lagging regions are much likely to be engaged in "non-tradables" and are usually less productive (Farole et al., 2018). Another important structural issues is the fact that the innovation systems are based on predominantly production oriented foreign direct investment (Radosevic and Stancova, 2015).

The most recurrent policy recommendations for improving the absorptive capacity of local firms and clusters and for enhancing the entrepreneurial discovery processes in the less developed regions can be summarized as follow:

- support functional upgrading of firms in peripheral regions, providing incentives for investments in machinery and other advanced production equipments, facilitating knowledge exchange along the whole value chain, not only between firms and academia (Blazek et al., 2014);
- establish a business environrment that is conducive to investment and employemt and facilitate external trade in lagging regions; shift from micro-enterprises focused on non-tradables to larger firms with a stronger orientation towards external markets and a stronger position in international value chains (Farole et al., 2018);
- give stronger support to "internationalized" smart specialisation, i.e. foster demand – driven and "quality" foreign direct investments in innovation oriented activities, integrate foreign direct investment policies and innovation policies, develop strategic approaches to the internationalization of research and development and imporve horizontal links in the innovation ecosystems (Radosevic and Stancova, 2015);
- emphasize the Doing-Using-Interacting mode of innovation (not only the Science, Technology and Innovation mode) as a "bridging mechanism" that can be broadly associated with the symbolic and synthetic knowledge bases and relies more on informal learning, social capital, competence-builidng and experience-based know how (Asheim, 2018).

3.3. Universities, research organisations and knowledge intermediaries

Universities, together with other specialized institutes and laboratories, are the elite research units, regardless of the type and there is a very large body of literature emphasizing their roles in regional development. As such, universities make important contributions to human capital and skills development (the teaching function), business innovation (the research and innovation function), social and cultural development (public service function) and regional capacity building, through the engagement of its members in local civil society (EC, 2011).

The role of universities in smart specialisation is highlighted by Kempton et al (2013), i.e. the universities can contribute to assessing the regional assets, raising awareness and partnerships, providing specialist research expertise, enhancing skills of competencies, building capacity on the demand side, strengthening social relations which underpin the regional innovation system or contributing to local knowledge creation. In their turn, the research organisations occupy nodal positions in innovation eco-systems and have important contributions to bringing world class specialists and infrastructures into the region, offering access to external knowledge networks or sustaining regional and national development in certain sectors (Fitrakis et al., 2014). In practice, the engagement of universities in their regional economies is highly variable and different barriers – be it internal or external – exist in this respect, especially when the universities lack interest and/or mechanisms "to reach out" to the wider region or when the region and its constituents lack absorptive capacity and bridging mechanisms to connect academia, the private sector and the wider community (EC, 2011). Universities' engagement with the smart specialisation agendas is also strongly dependent on the university type (i.e. traditional universities, entrepreneurial universities, civic universities), but also on the spatial distribution of different types of higher education institutions, given the fact that there are a significant number of regions across Europe without a higher education institution or with just one or two (Edwards and Marinelli, 2018).

Universities' regional engagement is of particular importance for the less developed regions, where the private sector may be weak, may lack research and innovation capacity and/or absorptive capacity. In such a case, the universities are expected to become "anchor institutions" and have a central role in driving the smart specialisation strategy (EC, 2011). Yet, according to Bonaccorsi (2017), in European cohesion (less developed) regions, few universities produce really excellent research or, if they are excellent in a few fields, these do not match, in general, with the regional industrial structure. Or, as pointed by different authors, when the absorptive capacity is weak, there is a danger for excellent universities to become "cathedrals in the dessert" and/or support businesses from more favoured regions (EC, 2011). According to Vallance et al. (2017), the educational – rather than the research – function of universities should be considered of greatest significance in the less developed regions, together with their "developmental" role that is reflected in the direct participation to the design and implementation of the smart specialization strategies.

Policy recommendations for improving universities' contribution to smart specialisation in the less developed regions can be summarized as follow:
- in those regions with a low number (or without) universities, establishing multi-site universities and collaboration between VET and higher education institutions can provide successful alternative opportunities (Edwards and Marinelli, 2018); the collaboration between different actors in the higher education sector (universities, polytechnics, research and special purpose institutions, community colleges) should be encouraged, to establish an appropriate division of work (EC, 2011); the regional universities and non-university higher education institutions should be motivated to engage into the training and applied research needs of their regions and to look for complementarity between research, innovation, human capital and training (Bonaccorsi, 2017);
- in those regions with some excellent research universities, if a "co-specialization" between academic research and local industry exists, some dedicated, mission-oriented programmes should be developed; if such "co-specialisation" does not exist, then the policy "imperative" is to decouple the two areas (Bonaccorsi, 2017); instead, policy makers are asked to mobilize the strengths of these institutions in support of the region, while "building sufficient flexibilities to regional programmes and accepting a

certain amount of "leakage" in activities beyond the geographical boundaries" (Kempton, 2015, p. 495).

3.4. Government, formal and informal institutions, multi-level governance

Institutions are key elements in the realization and implementation of smart specialization. Conceptually, institutions are seen the formal and informal "rules of the game" that shape human interaction and organise social, political and economic relations (North, 1990). Grillitsch (2015) emphasizes "the structuring character of institutions" for social interactions; as such, institutional variety and connectedness are seen as important explanatory factors for the potential of path-breaking, entrepreneurial discoveries and creation of new development paths. At the same time, "institutions substantially contribute to or restrain problems like picking winners, rent-seeking behaviour, corruption and lock-ins" (Grillitsch, 2015).

Government institutions and governance structures are pivotal to effective design, implementation and monitoring smart specialisation. According to Foray et al (2009), there are three main roles of the government in smart specialisation: 1) to supply incentives to encourage entrepreneurs and other organizations to become involved in the discovery of regions' specializations; 2) to evaluate the proposed R&D specializations and assess their effectiveness; and 3) to identify complementary investments associated with emerging specializations (e.g. educational programmes, promoting General Purpose Technologies etc.). What is very important for the government institutions involved in smart specialisation is to try to avoid that inertia and path dependence lead to selecting already established sectors or areas that are too broad to become actionable (Forte et al., 2016). Moreover, the pro-active role of government is to bringing people together from within and outside the region/country, acting especially on behalf of smaller firms who lack the capacity to network nationally or internationally (Edwards et al., 2016).

In practice, the European Quality of Governance Index (QOG) reveals significant variations in QOG across the EU regions and a clear East – West pattern, where the regions and countries of the former communist bloc have scores much below the EU average (Figure no. 2).

Different empirical studies reveal that the institutional context and institutional capacities are major barriers to effective implementation of smart specialisation in the less developed regions. According to Foray et al. (2018), the underdeveloped institutional frameworks in the less developed regions can be described as being "over-bureaucratic, over-politicised, non-responsive, non-transparent, lacking strategic vision, with widespread rent-seeking behavior and low trust among key actors". Morgan et al. (2016) point to the fact that public administration in the less developed regions tend to have a "play it safe" mentality and that the interests of public sector bodies, private firms and the academy seem mutually divergent. Trippl et al. (2018) shed light on the severe prioritisation challenges for smart specialisation in the the less developed regions that appear to be related to "policy capture by vested interest groups" and the lack of experience in dealing with inclusive forms of governance. An econometric study conducted by Rodriguez-Pose et al. (2014) reveals the strong links that exist between the quality of government institutions (both formal and informal) and innovation performance and concludes that the greatest gains in innovative from institutional reforms could be obtained in the less developed regions, where the initial quality of government is low and there are challenges related to inertia, lock-in, clientelism and corruption. These findings have important policy implications for smart specialisation, which is highly dependent on the quality of the local institutional framework.

Fig. No. 2

European Quality of Government Index 2017
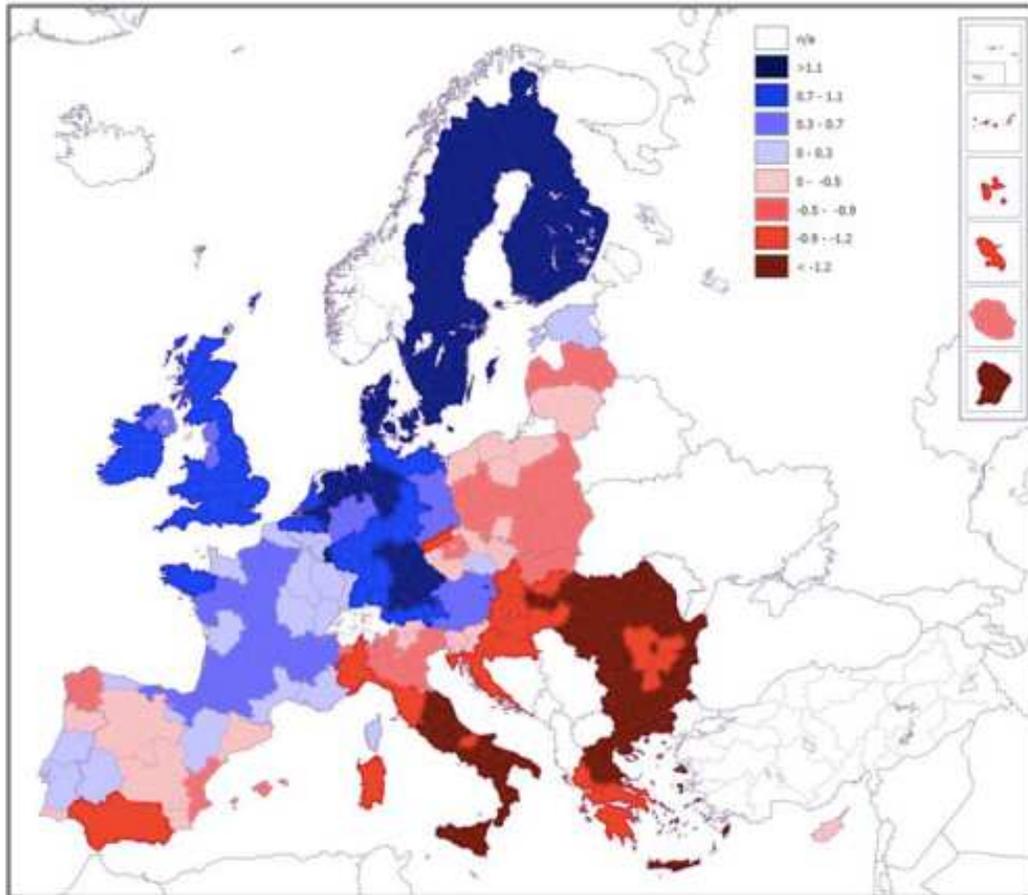
Charron and Lapuente (2018)

Policy recommendations for improving the quality of institutions in the less developed regions can be summarized as follow:
- fix the major institutional weaknesses before selecting the smart specialisation priorities (Blazek et al., 2014), as those regions plagued by institutional failures risk setting "unreasonable expectations" (Farole et al., 2018); build mutual trust between the participants to entrepreneurial discovery processes first – especially between entrepreneurs and academia – and then ask them to work together to find new business opportunities (Morgan et al., 2016);
- building a "competence centre" to manage the processes of learning and strategy making – which is freed as much as possible from political considerations, involve professionals from diaspora networks and stimulate inter-ministerial working groups and high-level RDI Councils – can be a good solution to design and follow the smart specialization strategy (Kleibrink et al, 2017);
- develop strategies aimed at combating corruption, promoting transparency and accountability, reducing the distance between policy-makers and the civil society etc.; develop the necessary collaborative leadership skills of public sector bodies, i.e. through formal action learning programmes, participation in trans-national co-operation networks, use of peer-review techniques (Rodriguez-Pose et al., 2014).

3.5. Regions, structural conditions and Cohesion policy
Smart Specialisation relies on the idea that good policy design and development depend on the characteristics of the regional context (Guzzo et al., 2018), so that the RIS3

should take into account the geographically specific characteristics and be embedded in the local context. As recommended by the RIS3 Guide, the smart specialisation strategies should be set on the basis of strategic intelligence about a region's assets (i.e. industrial structures, clusters, human capital, linkages and connections with other regions etc.), regional challenges (including ageing population, labour market mismatches etc.) and the competitive advantages and potential for excellence (Foray et al., 2012). In fact, these are the areas targeted by the European Cohesion Policy, whose aims are to support job creation, business competitiveness, economic growth, sustainable development and improving the quality of life.

The European lagging regions – be them the low-income or the low-growth ones –are facing numerous economic challenges, as evidenced by "The Lagging Regions Report"(EC (SWD) 2017 132), i.e. they have lower productivity, educational attainment and employment rates, they face significant population losses and out-migration of the younger and more educated population. As noticed by Kroll (2017), the EU regions with weaker innovation capacities have embraced with more enthusiasm the RIS3 agenda, which is explained, to a large extent, by the fact that they receive a susbtantial share of European Funds for research and innovation. Even so, the the challenges of RIS3 in the less developed regions – as evidenced by the survey of the EC four years after the implementation of the Smart Specialisation policy concept – are multi-faced: lack of funding for staff recruitment and training appears as a very challenging obstale for 74% of the respondents from the less developed regions, as compared to 40% in more developed regions; similarly, near 61% of respondents from the less developed regions identified "insufficient political committment" towards the RIS3 agenda , "insufficient coordination with government departments" and "internal burocratic obstacles" as major challenges for smart specialisation (Guzzo et al., 2018)

The policy recommendations to address structural deficiencies in the less developed regions can be summarized as follows:

- the lagging regions should strive to overcome the main obstacles that limit growth, i.e. reduce gaps in infrastructure and invest in education and high quality human resources - by virtue of smart specialisation strategies (EC (SWD) 2017 132); an adequate mix of actions are needed in this respect, among which the upgrading of institutional environment comes first (Rodriguez-Pose and Ketterer, 2018);
- the logic of smart specialization should not be reduced to R&D and innovation; addressing the general education and training and the key economic institutions related to labour, capital and product markets are essential (Foray et al., 2018); smart specialization in "early-stage" regional innovation systems in the less advanced regions should either facilitate the emergence of some elements that are missing or accelerate the development of others, i.e. the regional knowledge base and dynamic learning processes (Ranga, 2018);
- to maximize the impact of Cohesion Policy on lagging regions, policy makers at all levels should reconsider the priorities and targets for the next program cycle beginning in 2012; at least five horizontal priorities should be considered in this respect, namely to address the macro-structural weaknesses that limit growth potential (i.e. national fiscal policies), to improve the regional business environment, to leverage the productivity potential of cities, to invest in skills and to strengthen the institutional endowments (Farole et al., 2018).

3. Conclusions

Our paper has highlighted the challenges faced by the less developed regions in designing and implementing the smart specialization agenda and has revealed the most recurrent policy recommendation to tackle these challenges. Some concluding remarks are

worth to be mentioned in this respect. One should acknowledge the fact that not all the lagging regions are the same and that it is totally wrong to assume that innovation is not at all a feature of the less developed territories. Instead, each region has its specificities which should be distinctively assessed and then turned into smart competitive advantages. At the same time, as pointed out by Foray and Goenaga (2013), "smart specialization does not have magical properties; however, at minimum, a smart specialisation strategy transforms less advanced regions into good followers". It is thus evident that not all the regions can reach the same level of income, but, as pointed out by Farole et al. (2018), "it is also true that many regions have substantial underexploited potential". In this context, the smart specialisation agenda can help the lagging regions to (re-)discover themselves and cultivate their "underexploited potential" to create a new model of economic growth, regional development and quality of life.

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