STRATEGII MANAGERIALE

MANAGEMENT STRATEGIES

Revistă editată de
Universitatea „Constantin Brâncoveanu"
Pitești

Anul XII, nr. II (48) / 2020

Editura
Independența Economică

Autorii îşi asumă deplina responsabilitate
în ceea ce priveşte materialele publicate.

© Editura „Independenţa Economică”
Piteşti, Calea Bascovului nr. 2A
Tel./Fax: 0248/21.64.27

Editură acreditată de către C.N.C.S.I.S.

ISSN 2392 – 8123
ISSN–L 1844 – 668X

CUPRINS

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

Michael Ayorinde Afolayan[1]
Olatunji Fadeyi[2]
Chijioke Nwachukwu[3]

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

[1] PhD, Department of Business Admin, Anchor University, Lagos email: ayorindeafolayan1234@gmail.com
[2] PhD Candidate, Department of Business Admin, Anchor University, Lagos email: fadeyiolatunji@yahoo.com
[3] PhD Business Management and Economics, Censox Business Solutions, email: cesogwa@yahoo.com

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.

Organisational Performance

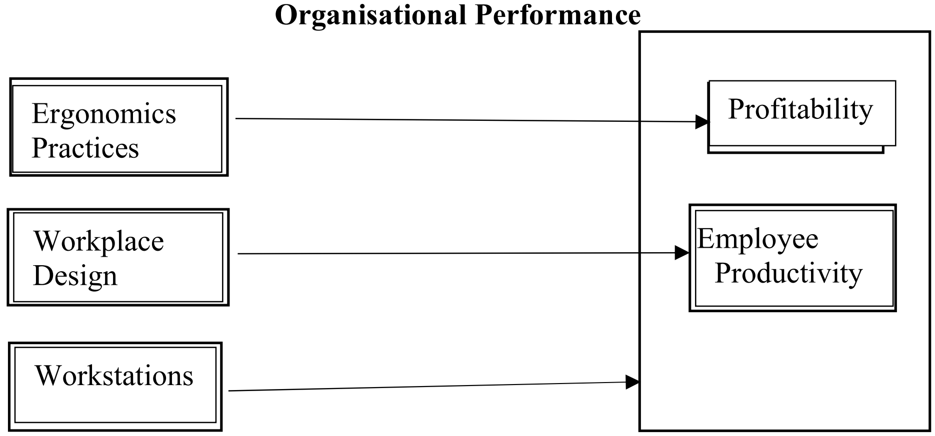


Figure 1. Conceptual Model showing the relationship of the study variables

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.

References

Ansoff, H.I. (1984). *Implementing Strategic Management*. Prentice-Hall: Englewood Cliffs, NJ

Asante, K. (2012). The impact of office ergonomics on employee performance: A case study of the Ghana National Petroleum Corporation (GNPC). Kumasi: Kwame Nkrumah University of Science and Technology Repository.

Bangwal. D., tiwari, p. & chamola, p. (2017). Workplace design features, job satisfaction, and organization commitment. Journal of workplace rights, july-september, 1 –12

Carmen, C. (2013). Office design enhances employee health. wellness & performance. Retrieved from http://www.carmenrealestate.com/blog/bid/317204/office-design-affects-employee performance.

Chandrasekar, K. (2011) Workplace Environment And Its Impact On Organizational Performance In Public Sector Organizations; *International Journal of Enterprise Computing and Business Systems* (Online) . 1(1). January http://www.ijecbs.com

Changing Minds (2016). http://changingminds.org/disciplines/workplace_design/workplace_design.htm.

Cunneen, P. (2006). How to Improve Performance Management. *People Management*, 12(1), 12 January. Pp42 design/what-is-workplace-design.

Deuble, M. P., & de Dear, R. J. (2012). Green occupants for green buildings: The missing link. *Buildings and Environment*. 5, 21-27.

Duffy, F & Chandor, M (1983): The Orbit Study – Information technology and office design. DEGW/ Eosys, London.

Duffy, F. (2000). Design and Facilities Management in a time of Change. *Facilities*, 18 Nos

Ezenwa , J. U(2005). Strategies for Business Success, Vickers Services, Lagos,1st Edition

Ezenwa J. U. (2015). Balanced Scorecard; An Article Published on LinkedIn.com

Gensler Design + Performance Index, the U.S. Workplace Survey. (2006). www.gensler.com

Gitahi N. J., Waigajo, M. & Koima J. (2015). Effect of Workplace Environment on the Performance of Commercial Banks Employees in Nakuru Town. *International Journal of Managerial Studies and Research (IJMSR)*, 3(12), 76-89.

Grimshaw, B. (1999). Facilities management: the wider implications of managing change. *Facilities*, 17(1/2).

Hameed, A and Amjad S (2009) Impact of Office Design on Employees' Performance; A Case Study of Banking Organizations of Abbottabad, Pakistan. *Journal of Public Affairs Administration and Management*, 3(1).

Heath (2009) The Knowledge Workplace Designing for Interiors and Services

Hooley & Lynch (1985). Using the Balanced Scorecard to Align Your Organization; Balanced Scorecard Institute, Strategy Group.

International Ergonomics Association (2017). Definition and domains of ergonomics. Available at: http://www.iea.cc/whats/. Accessed 29 May 2017.

Institute for Quality of Life (2014). The impact of the Physical Workplace on Performance: An Introduction**.**

International Facility Management Association (2004), Benchmarks III, Research Report 18, (Houston, TX: IFMA, 2004): 36

Kanter (1983). The Business Case for Innovative Workplaces, International Facility

Kahler (2016) Foundations of Behavioral Research, Subject Publications view Delhi

Kohun, (2002). Workplace Environment and its impact on organizational performance in Public sector organizations, *International Journal of Enterprise Computing and Business System International Systems*, 1(1).

Laing, A. (1991). The post-Fordist Workplace: Issues of Time and Place. *Facilities*, 98, 13-18.

Laing, A. (1993). Changing Business: Post-Fordism and the Workplace, in Duffy, F., Laing, A. and Crisp, V. (Eds), The Responsible Workplace, Butterworth, Oxford

Lawal, A. A. (2000). Business Policy: Unpublished Lecture Module for MBA students, Abubakar Tafawa Balewa University (ATBU) Bauchi. Management Association, World Workplace Conference.

Leather, P., Beale, D., & Sullivan, L. (2003). Noise, psychosocial stress and their interaction in the workplace. *Journal of Environmental Psychology*, 23, 213-222.

Lee, S. Y., & Brand, J. M. (2005). Effects of control over office workspace on perceptions of the work environment and work outcomes. *Journal of Environmental Psychology*, 25, 323-333.

Maris Interiors LLP (2016). http://www.maris-interiors.co.uk/optimisation/workplace-

Mendis M.V.S (2016). Workplace Design and Job Performance: A Study of Operational Level Employees in the Apparel Industry of Sri Lanka. *International Journal of Scientific and Research Publications*, 6(12).

Monfared, I. G., & Sharples, C. (2011). Occupants' perceptions and expectations of a green office building: A longitudinal case study. *Architectural Science Review*, 54, 355-344.

Nwachukwu, C. & Chladkova, H. (2017). Human resource management practices and employee satisfaction in microfinance banks in Nigeria. *Trends Economics and Management*, 28(1), 23-35.

O'Neill, M. J. (2007). Measuring Workplace Performance. New York: Taylor and Francis.

Osuagwu, L. (1999). Marketing Management; Principles and Practice, Grey Resources. 1st Edition Lagos.

DEVELOPMENT OF AN AUTOMATIC STABILIZATION PROCEDURE AND A LOGICAL SCHEME FOR THE INDICATORS THAT ARE ASSOCIATED WITH THE NOMINAL ECONOMIC CONVERGENCE CRITERIA FOR INFLATION AND FOR GENERAL GOVERNMENT DEFICIT AND SURPLUS AS PERCENTAGE OF GDP

Alina Georgeta & Ailincă[1]

Abstract:

It is well-known that the member countries of the European Union (EU) must go through the stage of meeting the nominal economic convergence criteria imposed by the Maastricht Treaty in order to become part of the euro area. Thus, the states that remain outside the euro area, especially those in central and eastern Europe, who wanted and have committed themselves to the stages of entering the euro area, must go through the caudal forks of nominal economic convergence criteria. From the nominal convergence criteria, both in theory and in practice, it is distinguished as difficult to achieve in particular the harmonized inflation and the general government deficit and surplus as percentage of GDP. Fulfilling them (in particular, the budget deficit) in an automatic manner, although among the wishes of the European institutions, is an additional impediment. Therefore, the article aims to provide a logical model of ensuring the automatic stabilization of the two criteria of nominal economic convergence selected: - inflation and budget deficit.

Keywords: European integration, automatic stabilization, nominal convergence

JEL Classification: G01, E63, H30, P11

1. Introduction

In the paradigm of European integration in the euro area, the nominal economic criteria of convergence play a fundamental role. Therefore, selecting only inflation - a representative element for the monetary criteria of nominal convergence - and the public budget deficit - a representative element for the fiscal-budgetary criteria of convergence, is of course a simplification of the solution regarding the automatic stabilization of the nominal convergence.

Regarding the monetary criteria, selecting as a target the inflation, we recall that according to the National Bank of Romania, it is particularly noteworthy: the channel of the economic agents' expectations regarding the inflation, the channel of the interest rates practiced by the financial institutions, the credit channel and the exchange rate channel.

At the same time, regarding the monetary policy, in the case of Romania, the exchange rate is under a managed float regime, and the monetary aggregates are monetary anchors, but with a less visible role, in the context in which the inflation targeting strategy is mainly pursued by the NBR through the interest rates of monetary policy and less through the monetary mass.

Monetary market operations aim at orienting interest rates and managing liquidity on the market, as well as communicating the manner in which monetary policy orientation in the market occurs, pursuing the injection and respectively liquidity absorption. The injection and respectively the liquidity absorption are assimilated in a previous paper (Ailincă coord., 2018) with the expenditure function, respectively with revenue collection to the state budget from the fiscal-budgetary policy. Given that this way of systematization allows us to classify the automatic stabilizers according to the liquidity supply / withdrawal in / out of the economy, we note that the nominal economic convergence criteria imply the reduction of the inflation and the deficit respectively, so rather the activation of the withdrawal function of liquidity in the economy.

[1] Scientific researcher 3rd degree, “Victor Slăvescu” Centre for Financial and Monetary Research, Bucharest, The House of Romanian Academy, Calea 13 Septembrie no. 13, Romania, Telephone: +40.21.318.24.19, FAX: +40.21.318.24.19, e-mail: icfm01@icfm.ro; corresponding author email address: alina.glod@gmail.com.

In order to handle automatically the budget deficit, if we consider the flat tax regime and not the progressive tax system (as in the case of the new Member States preparing to join the euro area) it might be rather necessary and appropriate to act more on the elements of budgetary expenditure. However, framing the deficit within the criterion limit (3% of GDP) implies rather the withdrawal of liquidity from the economy, so the mode of action must be by reducing fiscal-budgetary expenses, or by increasing revenues or in both ways, so that the gap between those two to be reflected by reducing the budget deficit below the reference threshold.

At the same time, for simplification we assume that the automatic stabilizers selected for inflation and the balance of the general budget consolidated in the GDP act individually, directly only on a macroeconomic policy, without a more complex action, for example simultaneously in the monetary and fiscal policies (as it is happening in reality).

If we analyse the automatic stabilization of the two criteria inflation and budget deficit from the perspective of the typology of shock on which it acts, we could observe that it is rather of the nature of the supply than of the demand, assuming the necessity of liquidity absorption once the reference is exceeded. At the same time, we can consider for the ease and effectiveness of the analysis that the trigger is the exceeding of the reference imposed by the two criteria: inflation and the general government deficit and surplus as percentage of GDP. Of course, in the case of a fine adjustment, only the proximity of the reference (similar to the idea of using a "motion sensor") could trigger the automatic stabilization mechanism, which would be put into operation.

If we consider that automatic stabilizers are generally selected from the classical discretionary instruments, they are identified, on the one hand, in the case of monetary policy, with the following instruments: exchange rate, automatic open market operations pursuing liquidity injection and respectively absorption, the interest rate at the permanent automatic credit facility and the deposit facility, the automatic rate of the RMO in lei, the automatic rate of the RMO in foreign currency (i.e. their projection on a progressive or regressive structure), and in the case of fiscal-budgetary policy with: personal income tax, corporate profile tax, para fiscal levies (contributions), transfers (social assistance) (social aid, social subsidies, minimum guaranteed income) and transfers (unemployment benefit). At least theoretically, it is not excluded that in the future, to be conceived a design of automatic stabilizers beyond the classical instruments existing today in monetary and fiscal-budgetary policies.

In the case of treating the inflation criterion or the general government deficit and surplus as percentage of GDP, the reduction or the gap is compared with the reference (the liquidity absorption), so the inflation stabilization instruments can be: the exchange rate, the automatic open market operations that follow the absorption of liquidity, the interest rate at the permanent automatic deposit facility, the automatic rate of the RMO in lei, the automatic rate of the RMO in foreign currency, and in the case of the budgetary balance mainly the direct tax instruments. The aspect is valid only in the case where there are no simultaneous liquidity injection measures, in this situation all the monetary operations must be taken into account, following only the net - the result between injection and withdrawal of liquidity.

In a previous paper (Ailincă coord., 2018) we mentioned a number of elements necessary to be fulfilled by an automatic stabilizer such as: - to have an immediate character, - to be contingent (efficient in relation to the purpose pursued), - to function only as needed (the saturation principle) and to have the amplitude needed to immediately take action. Therefore, the logic schema should reflect these properties and repeat the steps / algorithms required whenever necessary to make the gap between inflation and reference zero and even less than zero.

At the same time, the above work mentions the need to respect some design stages. Thus, it should start from: identifying problems and defining the purpose of stabilization (general purpose), the object required to be subject to stabilization or the sphere of action needed to stabilize the management institution (initiation); the analysis of resources (implicitly a cost-benefit analysis between discretionary and / or non-discretionary measure) and of the determinants and triggers (formulation and evaluation of resources), the general way by which this can be accomplished (the mechanism: stimulation or inhibition), and the concrete modality or form of implementation of the stabilization, more precisely the strategies for achieving the targets (planning and implementation), as well as the evaluation, control and possible correction of the results.

In the present case, the general purpose of stabilization concerns the monetary policy and respectively, the fiscal policy; the particular goals of stabilization (the objects subject to stabilization) are inflation and the general government deficit and surplus as percentage of GDP. At the same time, the management institutions are the central bank (for inflation) and the government respectively (for the balance of the general budget consolidated in GDP). Regarding the establishment of triggers, we will consider exceeding the reference for inflation respectively for the general government deficit and surplus as percentage of GDP, as well as the concrete form of stabilization, in our case, as we have established above: by draining liquidity. It should be noted that, the general government deficit and surplus as percentage of GDP cannot pose problems in the reference ratio as long as it is positive, only the negative gap between budgetary revenues and expenditures requires the problem of stabilization within the criterion limit. Therefore, when we refer to the idea of general government deficit and surplus as percentage of GDP stabilisation, we will only reflect in the analysis the budget deficit situation.

2. Shortcomings in the proper design of automatic stabilizers for nominal convergence criteria

A possible shortcoming, however, could be the fact that the automatic stabilization in the convergence criteria paradigm may be at odds with the need to stabilize a national economy or a region. The injection of liquidity in the economy (implicitly the budgetary expenses) ensures a better stabilization of an economy and not the absorption of liquidity, or inflation often implies a tempering of it within the criterion, solved in the literature, but also in practice, with the withdrawal or absorption of liquidity from the money market and implicitly from the economy.

Moreover, in general, an automatic stabilizer is guided by the anti-cyclical character of the economic behaviour, aiming to say to a monetary or fiscal relaxation during the period of economic decline, while during the boom period to a consolidation of the fiscal-budgetary policy. Or the stabilization of the nominal economic convergence criteria presents the "risk" of not overlapping over the real situation of the economic cycle, more exactly over the "loop" of the economic cycle to which it should be compliant, thus counteracting its action. This risk is quite evident also due to the fact that the economic boom in the contemporary period is quite diluted as concerning the social and economic effect, while the recession has an immediate, clear, powerful and sometimes lasting effect in the socio-economic plan, often affecting the most disadvantaged categories of society. This fact may emphasize the lack of synchronization of the two types of stabilization - the stabilisation of the economy as a whole and the stabilisation of nominal convergence criteria.

Theoretically, the duration of action of the automatic stabilizers should be short-term, and the benefits / effects of stabilization should be relatively long, so the tempering of inflation and the budget deficit should occur over a relatively long, noticeable horizon, say for a minimum of three years. Also, the depth of their effects should be large, going into the depths of the sectors of the national economy, but this aspect is less identifiable when we refer to the nominal variables of the economy, as in the case of nominal economic convergence criteria.

If we look at the property regarding the ability to remove an undesirable effect or obtain a positive effect, in the case of the convergence criteria followed the automatic stabilizers are rather deviant, by avoiding or reducing the overcoming of the reference threshold. This aspect is mainly outlined on the basis of the manner in which the criteria are formulated - the criteria being formulated in the negative sense, of penalizing the passing of references and not of "rewarding" their fulfilment by the EU member countries.

Given that the nominal convergence criteria are intended to be met not in one country, but at the level of an entire region - namely the euro area, we can say that there is a real opportunity to design automatic stabilizers with action beyond the borders of a single region of a country. Thus, the mixed version of a national automatic stabilization component and a regional component should not be neglected by the academic environment and decision makers.

If we refer to the effectiveness of the automatic stabilizers, then, in the case of inflation and the general government deficit and surplus as percentage of GDP, we should select only the representative stabilizers with high stabilization efficiency. At the same time, the selection of several automatic stabilizers with reduced efficiency would require understanding of their cumulative effect, which is more difficult to evaluate and integrated into the model.

3. Methodology

The article outlines, in the absence of a literature on this subject, the need to systematize the functioning of automatic stabilizers on the criteria of nominal economic convergence. In particular, we will refer to two convergence criteria: inflation and the general government deficit and surplus as percentage of GDP (budget deficit). The approach is theoretical, logical and with insertions of interdisciplinary elements in order to obtain an adequate design of the automatic stabilizers for the selected nominal economic convergence criteria.

4. The stabilization procedure and the elaboration of the logic scheme

If we look at the problem of automatic stabilization in the form of a system, more exactly in the form of an interaction between various elements and with the outside in order to reach a goal or a purpose (Ctortoaje, 2004), then our automatic system should perform the control (more precisely the evaluation, command, adjustment and supervision) to meet the selected convergence criteria (inflation, respectively the general government deficit and surplus as percentage of GDP).

Therefore, the system should have at least two components: the element or variable to stabilize (note it Vss or the variable subject to stabilization) and the mechanism of automation (MA). Specifically, the system has input variables (exogenous, which influence the state of the system), status variables (dependent on the input variables, and describing the current state of the system) and the output variables (dependent on the input and state variables, with the role of transmitting, besides, the information regarding the state of the system). In this case, the output variables are all the input variables subject to automatic transformation. The input variables are: the variable subject to stabilization (Vss) and the reference (r) - they are compared, and according to the fulfilment (Vss <r) or non-fulfilment of the stabilization condition the necessary command is executed. Both the reference and the variable subject to stabilization change over time (an aspect valid only for inflation, for the budget deficit the reference being fixed), and the problem of regulation consists in the elaboration of a command which to ensure an output variable at / below the reference.

Thus, the automatic adjustment mechanism must be designed so that the value of the output variable is brought to / below the reference value in an automatic manner, based on a regulation law. It must be able to receive and process any changes to the system (the variable subject to stabilization and its transmission mechanism) and to bring the variable subject to stabilization in the desired status. Therefore, the automation mechanism should contain a comparator (noted C), which will provide the necessary information on the current state of the process and compare it with the reference. It must allow a switching command to the regulator (noted R) depending on the deviation from the reference. The controller generates the controls so that the adjustment objective can be achieved, transmitting the adjustment commands to the mechanism of execution (noted ME), which must implement the regulator command.

We can consider the problem of regulation having as solutions: - diminishing the effect of disturbances on the gap between the variable subjected to stabilization and reference (probably also by controlling the influence of the determinants and especially of the instruments) and through - the problem of pursuing the fulfilment of the reference value.

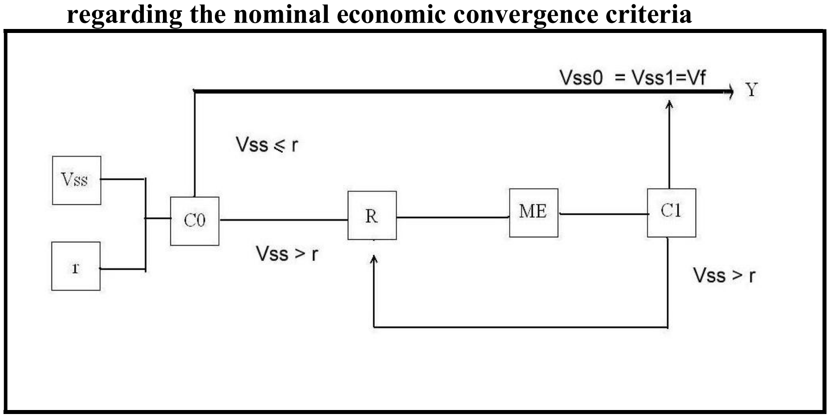
If we consider the automation mechanism according to the operating principle, we can consider that it can work according to the effect or the cause. If we consider that the adjustment has to be made after the effect, we must consider that it involves bringing the process output value to / below the reference value by permanently measuring the output and comparing it with the reference value. If we consider that the adjustment is made according to the cause, maintaining the output value at / below the reference value is done by permanently measuring the perturbations and / or the reference and adjusting them so that, when the perturbations and / or the reference are subject to changes, the output variable does not suffer changes. If we consider that the system of the automation mechanism can work after both, cause and effect, then the system of automation is a mixed one.

If we consider adaptive capacity, we can consider that the automation mechanisms are adaptive or predictive. In the case of predictive mechanisms, the control size is adjusted according to the predicted evolution of the output variable based on an internal model of the adjustment process.

In conclusion, in a simplified way, the automation model must take into account the gap between the stabilized variable and the reference, and when the stabilized variable is greater than the reference, the execution mechanism must reduce the monetary mass entered in the system (or in the case of inflation adjustment. to temper besides the monetary mass, the exchange rate or to increase interest rates on permanent deposit facilities or on minimum reserves in lei or in foreign currency, when these have on the based an inflation-generating loan process). In the case of fiscal-budgetary policy, the tempering of the monetary mass entered into the system can be done by reducing public expenditures, increasing the budgetary revenues or by both ways, preferring for simplification, the use of only the most efficient method (that is to say, the use of the most effective instrument in achieving the stabilization objective). The execution mechanism executes the command to reduce the money, respectively to adjust other instruments until Vss_1 (the output variable) is smaller than r (the reference).

Simplified, the logic scheme for automatic stabilization of the nominal economic convergence criteria is shown in the figure below (Figure no. 1):

Figure no.1 Logical scheme of the functioning of the automatic stabilization mechanism regarding the nominal economic convergence criteria



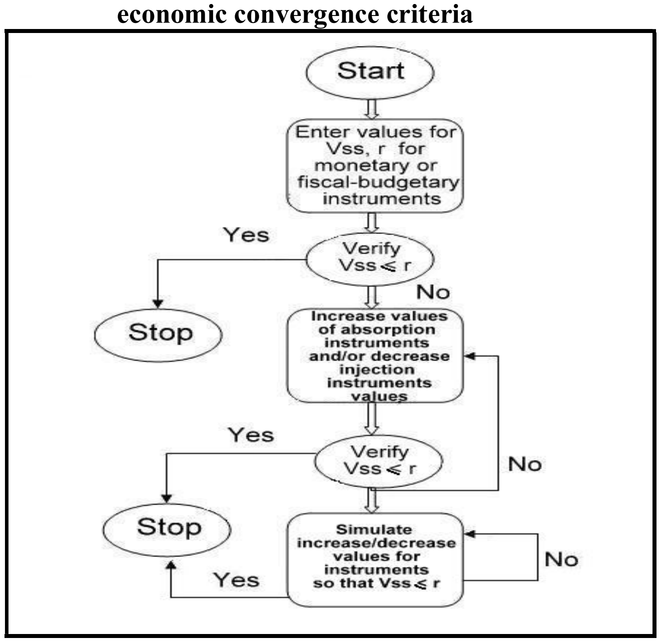
Source: author's conception. Notations: Vss - variable subject to stabilization or target variable, r - its reference, C0, C1 - comparators, at the two moments t_0 and t_1, R - regulator, ME – mechanism of execution.

This logic scheme can be schematically transposed into an operating model (see Figure no. 2).

Of course, the verification between the variable subjected to stabilization and the reference leads us in two situations: that of fulfilling the criterion, when the variable is under reference and that of exceeding the criterion. The two situations, in practice, in econometric analysis are described by two equations. We will thus adjust, even if the volume of data is precarious, the equation of non-fulfilment of the criterion (used as a guiding equation) to that of the fulfilment through successive scenarios, so that we can obtain situations of compliance with the criterion (whether we are talking about inflation or the general government deficit and surplus as percentage of GDP).

As we create equations that are aiming directly to the criterion fulfilment, we can track also the difference (the gap or differential) between the variable subjected to automatic stabilization and reference and its classification in the two situations of violation of the criterion and of compliance, of course adjusting the equation of violation, so that by successive scenarios to achieve the criterion. This difference, if we adjust it with the reference (in the case of inflation, the reference being an external factor of any monetary policy decision, being established at EU level) we obtain exactly the necessary value of the variable subject to stabilization and we check it comparing to the reference. Of course, the direct reaching of the gap/differential makes more closely and more easily the variable subject to the automatic stabilization to the reference, but none of the modalities can be considered wrong, merely alternative forms of solving the problem of automatic stabilization.

Figure no.2 Functioning of the automatic stabilization mechanism regarding the nominal economic convergence criteria



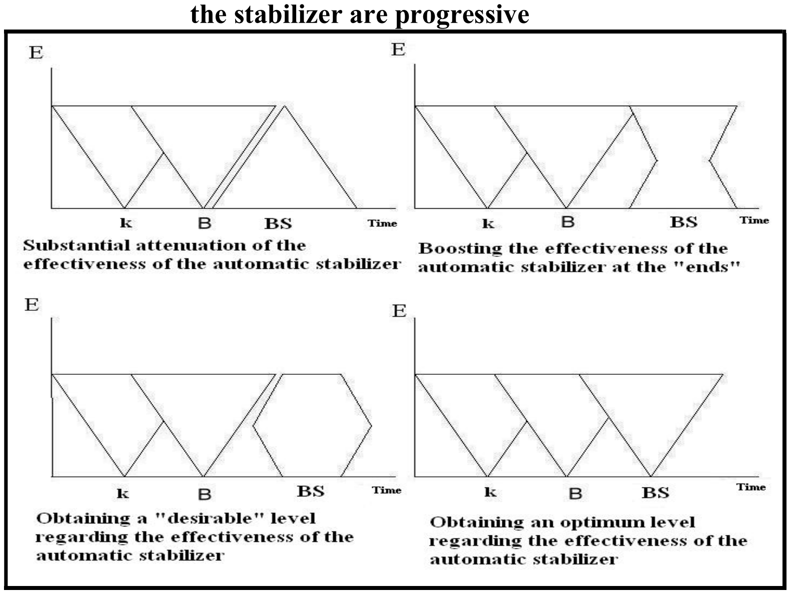
Source: author's conception. Notations: Vss - variable subject to stabilization or target variable, r - its reference

It should be noted, beyond the above, the effectiveness of the sought stabilizer or the quantitative dimension of it. If its effectiveness is reduced, the implementation of automatic stabilization may not be the happiest adjustment economic policy formula. For example, in the paper "Economic sustainability through adjustment policies in the context of globalization" (Dinga, coord., 2011), the quantitative dimension of the effectiveness of an automatic fiscal stabilizer, E refers to the product between the action rate and the action base. $E = -k * B$, the rate and base being substitutable. I consider it necessary to introduce a third component of effectiveness. And in the ideal case, even a fourth one, of a qualitative type.

The third dimension would be the social base structure (noted BS), that is, the elements on which it acts, for example: number of employees (in the case of the wage and income tax instrument, in the case of analysing the general government deficit and surplus as percentage of GDP), number of companies (in the case of the corporate income tax instrument), etc. The equation becomes: E = -k * B * BS. The structure, the basis can be essential in obtaining the efficiency on each tranche (e.g. of salary income, in case of analysing the tax on wages and income) and especially on the whole, at the global level of the stabilization instrument.

The fourth element, is rather qualitative, it could describe a series of qualities or criteria of the base structure (note: QBS or the quality of the base structure), by which we could establish the classification in tranches (stages or levels). For example, employees with a certain number of children or in care people or in the case of corporate income tax, companies reinvesting in environmental protection, etc., or in the case of a monetary instrument, financial and credit institutions to which these monetary instruments apply, who invest in social or environmental projects. Therefore the equation can become E = -k * B * BS * QBS. But the criterion of quality of the structure of the base is rather of ensuring social efficiency, than strictly of achieving the quantitative efficiency of the stabilizer. So, in this phase, we strictly limit ourselves to E = -k * B * BS. In the case of stabilization of the general government deficit and surplus as percentage of GDP, this element (SB) can become extremely important, while, regarding the monetary criterion of inflation, the rate or the base are the foundations of the stabilizer's efficiency. The figure below graphically shows the possible influences of the structure of the automatic stabilizer base, depending on its shape, when we consider the base and the rate having a progressive form.

Figure no.3 Possible influences of the structure of the base on the efficiency of the automatic stabilization in the case of nominal economic convergence criteria, when the rate and the base of the stabilizer are progressive



Source: author's conception. Notations: E - the quantitative efficiency of the automatic stabilizer, k - the action rate, B - the action base, SB - the "social" structure of the action base.

5. Conclusions

Although the Maastricht Treaty and other programmatic documents of the European Union speak of the need for automatic stabilization, at least in the case of the budget deficit, there is no concrete, tangible, theoretical form of EU assistance on such design on the criteria of nominal economic convergence.

Thus, this article aims to describe the elaboration of an automatic stabilization procedure and a logical scheme for the indicators that are associated with the nominal economic convergence criteria for inflation and respectively for the general government deficit and surplus as percentage of GDP.

Beyond the successful design of automatic stabilizers, macroeconomic policy managers at national level, but also at EU level, should mainly consider the effectiveness of automatic stabilizers or their quantitative dimension. If their effectiveness is reduced, then the implementation of automatic stabilization may not be the only solution to be used in macroeconomic policies, requiring the support of discretionary policies as well.

6. Bibliographic references

Ailincă, A.G. (coord.) (2018). "Stabilizatori automaţi în economie – concept, clasificare, elemente de proiectare", proiect al Centrului de Cercetări Financiare și Monetare "Victor Slăvescu".

Antohi, D. (2008). "Managementul lichidităţii din sistemul bancar, Direcţia Politică Monetară şi Modelare Macroeconomică", Bucureşti, 17 aprilie 2008. Online at: file:///C:/Users/PC/Downloads/R20080430Antohi.pdf.

Banca Centrală Europeană, 2018. "Raport de convergență", mai, Frankfurt am Main, Germany, 978-92-899-3213-4 (pdf).

Baldwin, R., E. and Wyplosz, C. (2006). "The Economics of European Integration", McGraw-Hill Higher Education.

Cîrtoaje, V. (2004). "Teoria sistemelor automate: analiza elementară în domeniul timpului". Editura Universităţii din Ploieşti.

Chivu, L., Poladian S., Ioan-Franc, V. et.al. (2019). "Convergenţa Economică şi Monetară a României cu Uniunea Europeană – un demers necesar - -etapa I", 2018, CIDE.

Comisia Europeană (2008), "Convergence Report 2018", Institutional Paper 078 | May 2018, European Commission's Directorate-General for Economic and Financial Affairs, ISSN 2443-8014 (online). Online at: https://ec.europa.eu/info/publications/economic-and-financial-affairs-publications_en.

Dinga (coord.), (2011). "Sustenabilitatea economică prin politici de ajustare în contextul globalizării", Editura Academiei Române, Bucureşti.

Taylor, John B. (2016). "Central Bank Models: Lessons from the Past and Ideas for the Future", Stanford University, November.

Varblane, U. and Vahter, P., (2005). "An Analysis Of The Economic Convergence Process In The Transition Countries", University of Tartu Faculty of Economics and Business, Administration.

***Maastricht Treaty, https://eur-lex.europa.eu/legal-content/RO/TXT/PDF/? uri= CELEX:12012 M/TXT&from=EN

NEEDS FOR TAX STAFF QUALIFICATIONS AND THE BENEFITS OF THIS PROCESS

Dr. Elsia GJIKA[1]

Abstract

The Tax Administration's activity and performance are important to be considered and studied to understand the factors that promote the performance improvement of this key institution in achieving the strategic objectives of the governance of each country. The objectives of the Tax Administration are the realization and administration of tax revenues for national taxes, public payments and collection of social security contributions. A majority activity of the Tax Administration has to do with the review of the data obtained from the financial statements and tax returns of the entities, and the use of this information to identify the highest risk subjects to carry out tax evasion.Initially, the study focuses on discovering the degree of recognition and use of financial ratios by tax inspectors in identifying high-risk tax evaders. Further, using statistical analysis, the paper identifies which are the most important financial ratios that can help tax inspectors in their daily work. From the analysis of the paper we find that a significant part of the tax evasion is revealed by the controls proposed by the tax inspectors and that the level of recognition and use of financial ratios on their part is neitherappropriate nor adequate. The study is of practical value because it is the first of its kind and is intended to provide valuable recommendations to related parties such as the extension of using financial analysis and ratios in determining tax risk of various subjects.

In this context, this paper focuses on identifying the impact that financial analysis may have on improving the performance of the tax administration.

Keywords:*Tax Administration, financial analysis, tax risk.*

JEL classification: M41

1. Introduction

The relationship between tax authorities and taxpayers is a relation which, like all relationships described in the theory of principal and agent (Jensen and Meckling, 1976), is characterized by conflict of interest, information asymmetry, and moral hazard problem. According to this theory, because taxpayers are responsible to pay taxes to tax authorities, the latter can almost be considered shareholders of the entities, either small or large. “The state, by virtue of the rights it enjoys over the cash flows of entities, is de facto the largest minority shareholder in almost all corporations” (Desai et al., 2007: 592).

The need to prepare financial statements for tax purposes arises from the obligations that the entity has to pay taxes to the tax authorities and the latter's need for information in order to determine, with a reasonable level of accuracy, the entities’ correct taxable annual income. In small entities that rely on little or no external financing, it is likely that the tax authorities will be the primary agents to whom the owner and / or administrator of the entity is responsible.

And indeed, for most small private enterprises, the primary function of financial reporting can actually be entirely fiscal. In such cases, the reliability and the accuracy of the financial information represents a major issue for tax authorities. However, it should be borne in mind that tax authorities do not have as a primary purpose of their activity and existence to improve the quality of financial reporting of the controlled entities per se. Indeed, the positive and improving effect on the quality of financial reporting is only a by-product of the tax authorities' interest in accurate reporting of taxable income (Hanlon et al., 2014: 138). However, the tax authorities' monitoring role and the factors related to the reliability of

[1] Tax Inspector in DRT Elbasan, Elsia_gj@yahoo.com

financial reporting from the tax authorities' perspective provide an opportunity to explore the behavior that entities demonstrate regarding financial and fiscal reporting.

On the other hand, in this reciprocal principal / agent relationship, it is also interesting to examine the behavior of tax authorities in relation to their approach to selecting entities that will be subject to tax audits. Tax audit procedures include the investigation, review and the audit of an entity's accounting records and other sources of information in order to determine whether tax liabilities calculation and tax payment on behalf of the audited company has been accurate and based on complete and accurate information.

Tax liabilities calculation is based on information provided and declared by taxpayers and other sources; therefore, if during the tax audit there are discrepancies between the reported information and the verified situation, the amount of tax liability should be adjusted, and so a probable tax evasion or avoidance the entity has made could be discovered. Tax avoidances are generally recognized as tax liabilities that are not accounted for or paid on a timely basis, due to reporting of false amounts. Because the entities in themselves either have strong incentives to evade taxes or simply are not able to accurately calculate the amount of tax payable, the Tax Administration regularly and systematically carries out tax audits on economic entities.

Tax audits are often costly and therefore tax authorities should carefully choose which entities will be subject to a tax audit. It is important to target those entities that actually have the highest risk of having significant tax evasion. Therefore, defining effective and efficient methods and models for selecting entities that will undergo a tax audit is an important and priority task for tax authorities and as such has recently attracted the interest of the academics and empirical research in general.

From the perspective of the situation in Albania, the reform of tax audit procedures is one of the aspects of the administrative reorganization of the Tax Authorities which has taken place systematically in the recent years. These administrative reforms have focused on tackling topics such as the responsibility and the accountability of the public administration in general, including the Tax Administration, and the purpose of achieving a reconciliation between expenditure responsibility and administration responsibility. To improve the performance and public accountability of the Tax Administration it is necessary to broaden the scope of research and engage in the analysis of both current work practices and recommendations for new practices and methods in the future.

A particular focus of the paper will be on the procedures followed by the Tax Authorities for the selection of entities that will be subject to tax audit. Currently, the selection protocol mainly relates to identifying the profile of those entities which are most likely to declare inaccurate data and to be involved in tax evasion. This is achieved by calculating the level of tax risk for each entity, based on the entity profile, industry, sector and other pre-determinedvariables. The selection protocol is initiated by the Intelligence System of the Tax Authorities, based on all the factors mentioned above and beyond that, and to a certain extent, also the tax inspectors have a role in selecting certain entities for control. They may select companies for control based on risk indicators and procedures as well as priorities decided internally in the Institution. It is in this context that this paper tries to make a contribution towards the most important risk indicators that tax inspectors may use during their work in order to better identify the riskiest entities. The tax inspector is a regular observer of the entity, so he reviews monthly VAT (Value Added Tax) statements, social security payments, income tax declaration and payments, etc., and he is also able to read and verify the Financial Statements. If the inspector, based on his experience and his familiarity with the company, notices certain deviances or suspectible activity on behalf of the monitored company, he may propose to perform an in depth operational control of that entity. But to perform this in a professional and objective manner, and to avoid the mistake of performing costly tax audits on companies which are not really risky or tax evading, a high degree of professional qualification is required on behalf of the tax inspector. If an entity is wrongly selected to be subject to a tax audit, that would be a waste of valuable audit resources, hours of work spent without productivity, increased dissatisfaction on the part of the audited entity and, what is the biggest risk, the probability that another entity which is really risky and tax evading, will not be subjected to tax audits, because "the system just did not selected it" to be audited.

2. Methodology of the Study

To analyze the current situation and the use of financial analysis by the Tax Authorities as well as to test its impact on improving the performance of the tax inspectors we have designed the methodology of this study around a main research question which is supported by three hypothesis. The general context and viewpoint of the following research question and hypothesis is that logically having a qualified tax staff increases disclosures and reporting quality on behalf of the reporting entities and consequently increases tax revenues. Increasing tax revenues directly has an impact on the state budget, state expenditures and probably future economic growth.

In general, there exists the belief that a qualified and trained Tax Administration staff is expected to reduce the tax evasion, as the audited subjects will be more exposed to qualitative and careful examinations from tax inspectors. Also, ethical and integrity of the tax auditors is highly evaluated. The qualities that a tax inspector must possess are; honesty, ethical conduct, fairness in law enforcement as well as professional competence and skills in the execution of duties. Tax inspectors should avoid any conflicts of interest when performing their tasks of tax auditing. They shall not offer advice, exhort influence nor have any other type of connections with the taxpayer and are required to declare in advance those cases where they are directly or indirectly related to the audited subject.

On the other hand employees of the Tax Administration, specifically the employees of the Operational Control and Back Office Control have the obligation to respect the rights of the taxpayers and subjects that they control. Every taxpaying company has the right to be subjected to reasonable controls; the right to confidentiality of his tax and financial records; the right to information; the right to be heard and the right to complain for the preliminary tax audit results. For failure to conduct their functional duties on a timely and reasonable manner, for unfair and / or biased treatment of taxpayers, as well as for other unlawful actions, employees of tax audit authority, are responsible according to law no. 9920 dt. 19.05.2008 "On Tax Procedures in the Republic of Albania" and Law no. 152/2013 "On the Civil Servant".

Back to our main research question and the hypothesis more specifically will focus on the adequacy of use and importance financial analysis ratios as risk indicators by the tax Administration to accurately select the tax audit subjects.

Research question: Are financial analysis ratios important for using by the Tax Administration? That is, do financial analysis ratios discriminate between risky and non-risky tax audit subjects?

Hypothesis 1: The training and education level of tax inspectors have an impact on their performance within the Tax Administration.

Hypothesis 2**:**The comprehensive professional trainings of tax inspectors help them to correctly distinguish and select the tax audit risky subjects.

Hypothesis 3**:**Use of financial analysis ratios by tax inspectors improves their performance by helping them to correctly focus on the more risky subjects.

The testing of the hypothesis and therefore having an answer for the main research question will be achieved through the analysis of the data collected from questionnaires. Questionnaires with closed and partially open questions were prepared and distributed to the tax inspectors in the Regional Directorates of Tax Authority in Albania via email. Contacts of these tax inspectors were provided by the author from internal resources. In total 460 questionnaires were sent to the targeted group of tax inspectors in the period from October to December of 2018 and 115 were received back, resulting in a 25 percent response rate, which is an acceptable response rate for questionnaires performed via electronic means.

The questionnaire is divided into 3 sections which are organized in such a way as to relate to each of the three hypotheses. The first section of thequestionnairewhich tests the first hypothesis(The training and education level of tax inspectors have an impact on their performance within the Tax Administration (focuses on gathering data related tosample characteristics (such as gender, age, education level, professional qualifications in Finance and/or Accounting, position in the Tax Authority Directorate, and job experience).

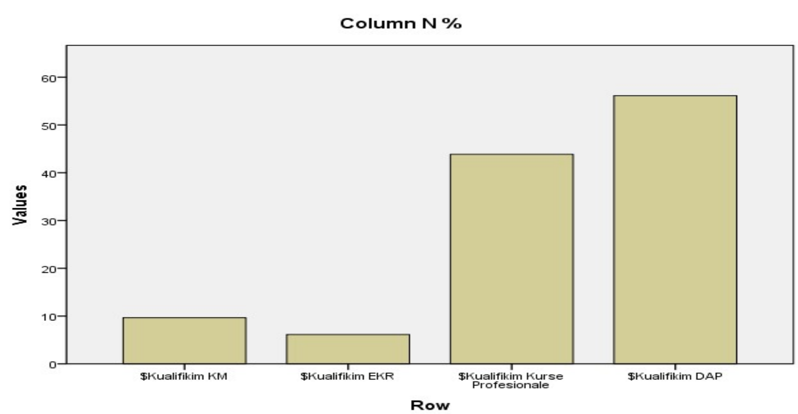
The data from the questionnaire showed that 45% of all respondents were female and 56% were male. Of the female inspectors, approximately 79% were *back office control* tax inspectors (that is, they monitor subjects via system from their offices, based on declarations and reports submitted by the companies themselves) and the rest were *operational control* tax inspectors (that is, they perform the tax audit on site and premises of the audited companies).

3. Analysis and main findings

In this section of the paper we will present the main findings and analysis derived from the data gathered through questionnaires conducted with Tax Inspectors in Albania.

One of the hypothesis of the study was that the level of qualifications and trainings of the tax inspectors had an impact on their performance. In the following chart no 1 we present the summarized findings on the analyzed respondents.

Chart No 1. The level of trainings and qualification of Tax Inspectors

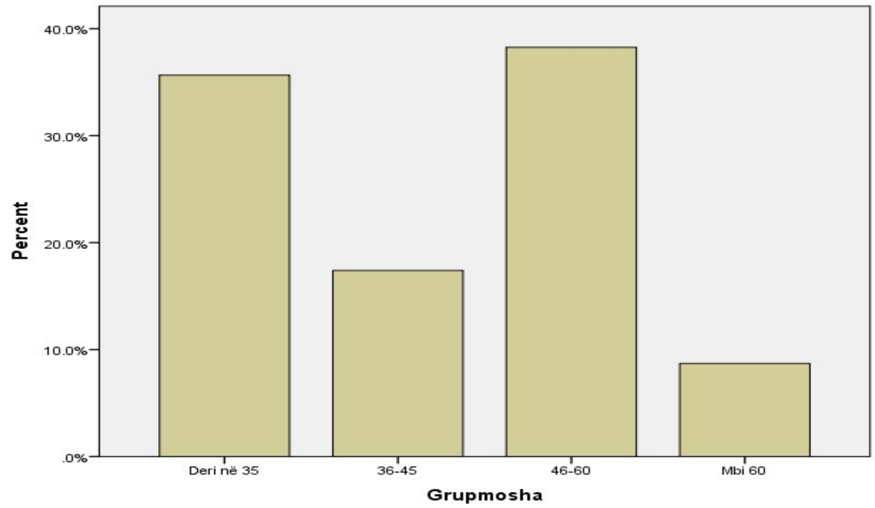


Source: Analysis of primary data gathered through questionnaires

Hat we see from chart 1 is that the majority of the inspectors do possess professional qualifications as well as qualifications and trainings undertaken by the Tax Authority where they are employed and the Department of Public Administration. Only a small fraction of the respondents possess the Auditor or Certified Accountant Certification (7 of the respondents are Auditors and 11 are Certified Accountants.

The next section of the questionnaire was focused on age of the respondents and the results are depicted in chart no 2.

Chart No 2. Age of Tax Inspectors

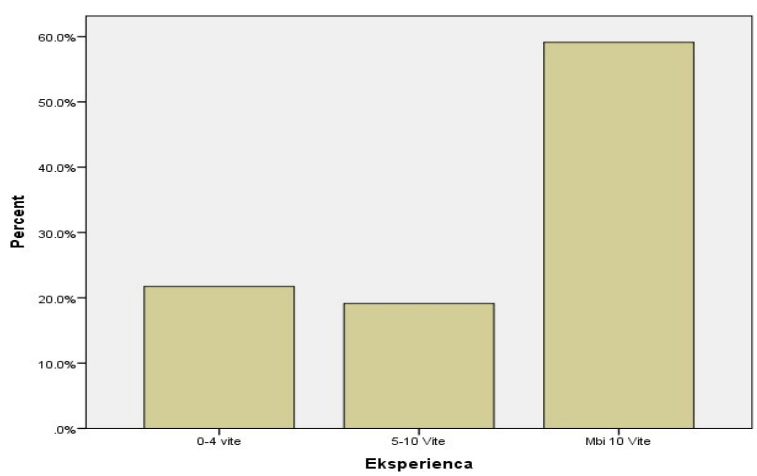


Source: Analysis of primary data gathered through questionnaires

As seen from chart 2, 36% of the respondents are younger than 35 years old, 18% of them are between 36 and 45 years old, 38% of them are between 46 and 60 years old and only 8% are older than 60 years. If we look at it in a deeper sub-categorization of data which relates the percentage of inspectors by position with the percentage by gender we see that approximately 71% of theback office control inspectors are female and the rest (29%) are male, whereas the operational control tax inspectors are categorized 19% female and 81% male. This is an interesting finding that may represent the common view point in Albania that operational control positions are widely considered to be "men job positions".

Further analyzing of the data showed that about 22% of inspectors had up to 4 years of experience, 19% of them had 5-10 years of experience and the majority (59%) had over 10 years of experience (Chart 3). This indicates that in the recent years, the Taxation Authority has employed a lot of young staff (about 40% of the staff is recruited during the last 10 year) and therefore they have little experience in this area and lack qualification and trainings.

Chart No 3. Job Experience of Tax Inspectors



Source: Analysis of primary data gathered through questionnaires

Section 2 of the questionnaire focuses on revealing the professional aspects of the tax inspector's work. Section 2 is designed around the second hypothesis of this study, namely that: *The comprehensive professional trainings of tax inspectors help them to correctly distinguish and select the tax audit risky subjects*. In this section the interviewed tax auditors/tax inspectors are presented with a list of 11 statements and for each of them the inspectors should respond according a Likert scale from 1 to 5 (from totally contrary to the statement to fully agree with the statement). The purpose of this section is to ask for the tax inspectors' opinion as which were the main sources of information they usually rely upon and which informative signals they commonly take in consideration during their everyday job.

From the inspectors' responses, the factors that serve as a risk signal are widely found in the declared Financial Statements, so it is very important to read them carefully, analyze them and keep them incontinuous focus.In addition, the inspector considers that other factors, not included in the Financial Statements, but relevant to the Company's going concern are also relevant. One should not overlook an immediate decrease in the profit rate, an immediate decrease in the turnover of inventory, a continuous increase in the credit balance of VAT. The immediate suspension of the activity of the company constitutes a risk factor, and must be verified by physical on site controls.

The third section of the questionnaire developed with tax inspectors focuses on identifying those financial analysis ratios that are perceived as important by tax inspectors for use in their work. This section links to the third hypothesis: Use of financial analysis ratios by tax inspectors improves their performance by helping them to correctly focus on the more risky subjects. 16 financial ratios are listed in this section of the questionnaire and the tax inspectors were asked to declare if they had, or if they did not have prior knowledge about each specific ratio. The results (shown in table no 4) reveal that most of the tax auditors/inspectors do possessa somewhat thorough knowledge about these ratios and they are of the opinion that these ratioswould be useful if usedin their daily work. This suggests that according the tax auditors' opinion these financial ratios should be probably included in the protocols and the procedures they are asked to follow in their job description.

Table No 4. Knowledge of the financial ratios by Tax Inspectors

Financial Analysis Ratio	Possess knowledge of the ratio	Do not possess knowledge of the ratio
Current Ratio	97.4	2.6
Quick Ratio	85.2	14.8
Debt Ratio	92.2	7.8
Times interest earned Ratio	86.1	13.9
Return on Equity ROE	84.3	15.7
Return on Assets ROA	71.3	28.7
Net Marginal Profit Ratio	85.2	14.8
Profit Margin	98.3	1.7
Total Sales to Administrative Expenses Ratio	91.3	8.7
Fixed Assets to Total Assets Ratio(Investment ratio)	93.9	6.1
Total Inventory to Total Assets Ratio(Inventory ratio)	94.8	5.2
Operating profit (EBIT)	93.9	6.1
Change between reported profit and taxable profit to Total Sales Ratio	93.9	6.1
Salaries Expenses / Total Sales Ratio	78.3	21.7
Percentage of change of sales to percentage of change of accounts receivable Ratio	87	13
(Inventory + Accounts Receivable) / Total Assets Ratio	86.1	13.9

Source: Analysis of primary data gathered through questionnaires

The answers to the questionnaire show that most tax inspectors are knowledgeable about financial analysis ratios and consider them to be important in determining tax risk. In reality, what we observe in practice the use of financial ratios is almost negligible. In the tax audit documentation papers, these ratios are rarely analyzed in the Manual. Even in the proposals of back office tax inspectors, in case of risky subjects, the analysis performed to justify the selection of the companies to be audited we find to be very poor and not really using the financial ratios as risk indicators. In the majority of case the inspector is based in the low rates of payment of liabilities or the low rates of profitability and the fact that the company has been unchecked for years, when he proposes a certain company to be tax audited. In this situation we consider to be a gap that can be filled with using financial ratios as risk indicators, such as the liquidity ratios and financial leverage ratios, especially given the fact that tax inspectors are knowledgeable about these ratios. Only in this way can the tax inspector reach a fair and unbiased conclusion as to whether which are the companies that should be tax audited.

This avoids frequent controls and audits on entities that do not pose considerable risk, saving time and administrative costs, reducing the companies' dissatisfaction and frustration with unreasonable controls and, also recognizing and their accountability and transparency. Also the operational control tax inspector, during his in-depth audit of financial statements and reports declared from an entity, should use the financial analysis ratios to form a better opinion about the financial position of the company so that findings form tax audit may be increased.

4. Conclusions and recommendations

The main objective of this paper was to explain how the financial analysis ratios influence and guide the tax inspectors/auditors in identifying the tax evasion risk, which in turn, directly affects the performance of the individual tax auditors but also of the Tax Administration in Albania as a whole. This purpose was achieved by studying the opinion, knowledge and insights of the tax inspectors in Tax Authority about the financial analysis ratios, through a questionnaire.

Based on data collected from these questionnaires and their analysis, we found that the majority of the inspectors have sufficient knowledge of financial ratios, and according to them, these ratios are important to use in their daily work in identifying and detection of tax audit risk.

But based on the author's personal observations, the reality is quite different. In practice, these financial ratios are not used almost at all. The back office tax inspector is in constant contact with the entity, he verifies and controls the statements, reviews and accepts the financial reports which are periodically submitted to him. We think that it is the back office tax inspector who should be using the financial analysis ratios when verifying the Financial Statements and, where he finds that these ratio levels are inadequate, he should propose the company for in-depth audit.In a later phase, the operational control tax inspector who performs the in-depth tax audit function, should also use these financial ratios, not as risk indicators any more, but more like performance measures and through them he should try to form an opinion about the financial position and profitability and performance of the company.If the Financial Statements will be subject to a prudential analysis by the back office tax inspectors, who will identify the risky subjects, then these entities should be the focus of a more detailed audit. This avoids frequent controls on entities that do not pose a risk, saving time and administrative costs, reducing subjects 'dissatisfaction with unreasonable controls.

From the analysis of the answers to the questionnaire, we found that only a small fraction of the tax inspectors hold a professional certification or title; more specifically out of 115 tax inspectors in total who participated in the study, the title of Certified Accountant is hold by only 11 participants in the study, whereas Auditors we find to be only 7 of them. This is a negative indicator regarding the level of qualifications and trainings of the Tax Administration staff.

Almost all inspectors have participated in various trainings conducted mainly by Department of Public Administration. This fact indicates the importance of continuing training and qualifications for tax inspectors. Regarding the age of inspectors, 36% of employees are less than 35 years old, while the rest are older, a fact that is also related to the job position, which requires qualified and experienced staff. Further processing of the data showed that about 22% of inspectors had less than 4 years of job experience, 19% of them had 5-10 years of experience and 59% had more than 10 years of experience. This fact indicates that 41% of the Tax Administration staff has been hired during the past 10 years.

We may make a remark here regarding the initial job positions and tasks undertaken by tax inspectors. Usually a tax inspector will find it easier to work as a back office tax inspector rather than an operational control tax inspector, because she / he initially only possesses basic knowledge about the tax legislation and is familiar with only limited business issues, (each business sector has its own issues and topics of importance and focus, resulting either in differences in tax liabilities reported or differences in control and audit procedures that should be exerted practically). Also, based on the author's personal experience, it is very difficult for an inspector to start working as part of the Tax Administration if she / he does not have the necessary experience. The more qualified the Tax Administration employees are, the more professionally they will behave at identifying tax risk and preventing tax evasion.

Other data from the questionnaires showed that a better professional training background guidesthe inspectors more accurately towardsidentifying the risky subjects. The inspectors responded to 11 statements listed in the questionnaire based on a 5-Scale Likert classification. From the analysis of these results, 70% of tax inspectors think that the Financial Statements are useful in identification of the tax risk and that they should be subject to a rigorous verification by the back office tax inspector. The Inspector should base his opinion in the Financial Statements, to identify those entities that are risky. He should be careful in selecting them, as only 30% of the cases to be audited will be proposed by the regional directorates and not by the Risk Management directorate. Also, 63% of inspectors stated that they agree or completely agree that the tax inspectors have no freedom in selecting the subjects to be audited. In fact, only 30% of the companies that will be audited are selected by the regional directorates, more precisely by audit inspectors from the tax audit directorate offices.

Other risk factors that are also considered important by the inspectorinclude increased inventory, increased VAT credit reserve, abrupt reduction in turnover or immediate disruption of activities, frequent staff turnover, and reduced rates of payment of tax liabilities. If these factors cited above are thoroughly examined and carefully analyzed, the inspector will be more accurate in determining a company's tax risk. The inspector should be professional and reasonable about the risk factors, as the entity may in fact be presented with a lower VAT payment rate, but on the other hand it may result it has invested in the economy or may have imported as well as exported. In these cases, lowering the VAT payment rate is more than normal, this entity presents no tax risk and does not have to be selected for in-depth control.

In the third and final part of the questionnaire we listed 16 financial ratios, which resulted that most of them have complete knowledge about these reports and are of the opinion that they should be used in their daily work in identifying tax risk. But in reality this is not the case. The relevant manuals of the Tax Authority, only briefly mention some ratios, such as the rate of profitability, the rate of payment of VAT on realized turnover, the rate of inventory turnover. We think that usingonly these ratios, it is not enough toform an opinion about the financial situation of the company and to judge fairly about the tax risk that the entity has undertaken.

Recommendations

At the end of this research and in support of the results we obtained from the various tests we did, we have some modest recommendations, which we think that if taken into consideration by the Tax Administration, would be of assistance to the quality of its work and to achieving the objectives of this important institution.

First, we recommend that financial analysis through indicators and financial ratios be used as widely as possible during the daily work of the tax inspectors.

Second, as a general recommendation, we suggest that achieving more effective and efficient tax audits also requires aqualified and with integrity staffadministration. Two key elements are recommended in this regard: (1) occasional staff training, especially in the area of financial reporting and analysis. Although training efforts have been made by both the Tax Administration and locally and overseas funded projects, the reality remains that few tax inspectors are up to date with in-depth knowledge; (2) providing comfortable working conditions for inspectors and not unnecessarily political rotation and, above all, strengthening the role and improving the image of the tax inspector as an important factor in the fight against informality.

When completing the questionnaires, as well as during the frequent contacts with tax inspectors, a specific concern was raised by them (although not part of this study but directly affecting the performance of the inspectors), that there are frequent (and sometimes unnecessary) changes in tax legislation. Fiscal packages' requirements change each year(sometimes even several times during a year); for example the format of the sales and purchase books and the VAT return has changed four times since 2014. The minimum contribution pay has changed almost every year, the rent tax as well as many other changes, mainly tax rates of various taxes, such as the dividend with new changes to the fiscalpackage, which is effective in 2019. These frequent changes adversely affect both the performance of the Tax Administration and the quality of the Financial Statements, creating confusion among companies and tax inspectors and introducing possible gaps for tax evasion or abuse. As a final remark, we stress again that the selection and hiring of tax inspectors should be based on merit, not on political influence.

References

- Anantharaman, D., and Y. Lee. 2014. 2014. Managerial risk-taking incentives and corporate pension policy. Journal of Financial Economics 111 (2): 328-351
- Angelo (1981), Auditor size and audit quality, Journal of Accounting and Economics Volume 3, Issue 3, December 1981, Pages 183-199.
- Barrie Russell (November 2010), Revenue Administration: Developing a Taxpayer Compliance Program. Technical notes and Manuals
- Beasley (1996), An Empirical Analysis of the Relation between the Board of Director Composition and Financial Statement Fraud, The Accounting Review Vol. 71, No. 4 (Oct., 1996), pp. 443-465.
- Bradley (1994) Fraudulent financial reporting and company characteristics: tax audit evidence.
- Charles P. Rettig(2011), IRS Audit Techniques Guides and Current Tax Enforcement Priorities, Journal of Tax Practice and Procedure, p. 25, August-September 2011.
- Daniel N. Erasmus, Proactive Tax Risk Management, Thomas Jefferson School of Law Research Paper No. 1435612, September 23, 2009.

- David A.Gunther , 1994 Earnings Management in Response to Corporate Tax Rate Changes: The accounting Review, Vol 96, No.1, (Jan 1994) pp 230 -243
- Doyle, J., W. Ge, and S. McVay. 2007. Accruals quality and internal control over financial reporting. The Accounting Review 82 (5): 1141-1170.
- Kathryn Keneally, Basic IRS Audit Techniques: Taxpayer Interviews, Journal of Tax Practice & Procedure, p. 19, August-September 2010.
- Lev, B. and D. Nissim. 2004. Taxable income, future earnings, and equity values. *The Accounting Review*79 (4): 1039-1074.
- Lewis, Richard & Pendrill David. (2004) Advanced Financial Accounting, seventh edition.
- Ligj Nr.92/2014 datë 24.7.2014, "Për tatimin mbi vlerën e shtuar", në Republikën e Shqipërisë, i ndryshuar.
- Ligji Nr. 9920 datë 19.5.2008 “Për Procedurat Tatimore në R.Sh.”
- Ligji 47/2016 “ Për disa ndryshime në Ligjin 10091 dt 05.03.2009’’
- Manuali i Hetimit Tatimor
- Manuali i kontrollit tatimor (2018)
- Manuali i Manaxhimit të riskut (2017)
- Manuali i Riskut (2017)
- Materiali orientues i Drejtorisë së Përgjithshme të Tatimeve Nr 10184 dt. 03.05.2013
- McGuire, S., T. Omer, and D. Wang. 2012. Tax avoidance: Does tax-specific industry expertise make a difference? The Accounting Review 87 (3): 975-1003.
- Michelle Hanlon, Jefrey L.Hopes, Nemit Schrof. (2014) Journal of American Taxation Association, Vol. 36, No. 2, pp. 137-170, Fall 2014 MIT Sloan Research Paper No. 4849-10, The Effect of Tax Authority Monitoring and Enforcement on Financial Reporting Quality
- Michelle Hanlon, Shane Heitzman, A Review of Tax Research, July 25, 2010.
- Stevanie S. Neuman,Thomas C. Omer,Andreë P. Schmidt,Assessing Tax Risk: Practitioner Perspectives, 2004 paper.
- Stewart C. Myers, The Capital Structure PuzzleThe Journal of Finance, Vol. 39, No. 3, Papers and Proceedings, Forty-Second Annual Meeting, American Finance Association, San Francisco, CA, December 28-30, 1983. (Jul., 1984), pp. 575-592.
- Shackelford dhe Shevlin, (2001), Empirical tax research in accounting, Journal of Accounting and Economics, 2001, vol. 31, issue 1-3, 321-387.
- Shackelford dhe Shevlin,(2001),Empirical tax research in accounting,*Journal of Accounting and Economics*, 2001, vol. 31, issue 1-3, 321-387.
- Shelley C. Rhoades-Catanach**,** *The Tax Compliance and Audit Policy Implications of Costly False Detection Errors*, 1996,https://papers.ssrn.com/sol3/papers.cfm?abstract_id=15051**.**
- Shelley C. Rhoades-Catanach, The Tax Compliance and Audit Policy Implications of Costly False Detection Errors, September 1996.

SUSTAINABLE DEVELOPMENT AND SME MARKETING

Youssef MAKLOUL [1]
Mustapha EL KORAICHI[2]

Abstract

On *the one hand, small and medium-sized enterprises (SMEs) are certainly predominant in the Moroccan economic and productive fabric. 80% is the figure that represents the weight of SMEs / VSEs in the Moroccan economy. Of course, behind this percentage lies an incredible variety of companies. On the other hand, the behavior of companies in terms of sustainable development and marketing, materialized by the initiatives and actions of entrepreneurs, are by no means identical, particularly in a context marked by difficulties in accessing information on international standards and developments in sustainable development strategies. Indeed, between proactivity and acquiescence for some, compromise and opportunism for others and reactivity and avoidance for a third group, the range is varied. This heterogeneity is also reflected in the way, efforts and resources invested by each company to communicate its level of commitment to sustainable development. The purpose of this paper is to elaborate a critical review of the literature on the relationship between sustainable development and SME marketing that will lead to the proposal of a methodology for the conduct of an empirical study in a future research work.*

Key words: *Sustainable development, SME marketing, Behavior of SMEs.*

Growing international concerns about sustainable development and climate change are leading companies to face the challenge of integrating environmental issues into their strategies and activities. In this context, the creation and successful development of products and services that respect the environment are essential to reduce the environmental impact of industrial activities and promote a cleaner production. Marketing is fundamental to achieve this goal since it deals with the development of ideas and the definition of the product concept and its characteristics.

First of all, we will discuss the relationship between sustainable development and marketing, as for the second point it will focus on the presentation of a critical review of the literature on sustainable development and marketing of SMEs in the Moroccan context.

I- Sustainable development and marketing: an approach based on taking into account the interests of stakeholders

Sustainable development fits in the frame of the precepts of stakeholder theory which considers that the company must take into account not only the interests of shareholders (monist vision of the firm) but also the interests of customers, suppliers, employees, regulators and the community at large (Freeman et al, 2007). Stakeholder marketing is part of this vision; it is considered as the set of activities and processes within a system of social institutions that facilitate and maintain value through exchange relations with different stakeholders (Hult et al., 2011). Specifically, an organization achieves market-oriented sustainability as it strategically aligns with customers' product needs and desires, as well as the interests of multiple stakeholders concerned with social responsibility issues involving economic, environmental and social dimensions (Hult and Tomas, 2010).

1. Sustainable development

The concept of sustainable development was historically coined by the United Nations Commission on Environment and Development in a document entitled “Our Future for ALL”. This concept advocates that development be planned to meet the needs of the present generation without harming the ability of the next generation to meet their own (Brundtland, 1987).

---

[1] Enseignant chercheur, Laboratoire de recherche L-QUALIMAT, Université Cadi Ayyad, ENCG El Jadida, Courriel : y.makloul@uca.ac.ma Jadida

[2] Enseignant Chercheur, Laboratoire de de recherche LERSEM, Université Chouaib Doukkali, ENCG Marrekech, Courriel : mustapha.elkoraichi@gmail.com

The goals of sustainable development are a major focus of international efforts to promote the overall well-being of the coming decades; it is about poverty reduction, public health improvement and protection of the environment (Fiorini and Hoekman, 2018).

Sustainable development is often considered as a concept that integrates three dimensions: environmental, economic and social. Indeed, the environmental dimension focuses on the preservation of natural resources, which ensure the natural function of local ecosystems and nature in general. The social dimension is about solidarity and cooperation with other communities. As for the economic dimension, it targets the quality of life through economic self-determination and the self-development of both individuals and societies (Sinakou et al., 2018).

2. Marketing for sustainable development

The consideration of sustainable development in the company's marketing activities is reflected in the writings of researchers in different ways. Some are adopting the concept of green marketing which involves integrating strategies to promote products by taking into account environmental claims about the attributes, systems, policies and processes of companies that manufacture or sell products (Parakash, 2002). In the same vein, researchers have developed the concept of ecological marketing, which consists of a set of approaches that seek to reconcile current marketing practices with ecological and social realities (Gheorghiu et al., 2013). Others embrace the notions of societal and social marketing by considering that social marketing is the application of commercial marketing principles to help individuals adopt practices that are in their interest or in the interest of society. As for societal marketing, it aims not only to satisfy the immediate wishes of customers, but also to serve the long-term interests of society (Kotler, 1994). Some people integrate ethics into marketing by pointing out that ethical marketing is the application of ethics in the marketing process (Nguyen and Rowley, 2015). And still others who borrow the word sustainable to integrate it into marketing considering that sustainable marketing refers to a state of mind and a process that results in the integration of sustainable development into the company's strategy and which materializes through all stages of the marketing mix, from the product lifecycle analysis to its design and price setting, to its communication and distribution, while ensuring the interests of all stakeholders (Lavorata, 2012). Others talk about Islamic marketing as the process of identification and implementation of value-maximizing strategies for the well-being of stakeholders in particular and society in general by referring to the guidelines cited in the Quran and Sunnah (Sayed Ali, 2011). In other words, Islamic marketing is based on the principle of maximizing value based on fairness and justice for the overall well-being of society (Saeed et al., 2001).

Loupe (2006) considers that the concepts of sustainable development and marketing are two divergent concepts: the first seeks to prevail the interest of the company whereas the second looks for the interest of the entire community. It considers that companies adhere to sustainable development when they become aware of the increasing sensitivity of market players to the challenges of sustainable development or by strategic choice when they decide to engage their social responsibilities in all their activities. It has also tried to find a common ground and convergence between these two concepts by considering that one can integrate the objectives of sustainable development in a marketing program by: the analysis of the sensitivity of the market to the stakes of sustainable development, the diagnosis of the company and its offer in relation to the market and the targeted segment, the definition of marketing objectives and their expected impacts in terms of sustainable development, the adaptation of the marketing program to integrate objectives and impacts of sustainable development, development of a plan for valuing the efforts made and the performances obtained.

In contrast to Loupe's (2006) vision, by referring to the concept of stakeholder marketing, the concepts of marketing and sustainable development converge by taking into account the interests of all stakeholders.

II- Sustainable development and marketing of SMEs in the Moroccan context

1. Sustainable development in the Moroccan context

The launch by King Mohamed VI of the National Initiative for Human Development (NIHD) in 2005 is the starting point for the consideration of sustainable development by institutions and public as well as private companies in Morocco. The objective of this initiative is the fight against poverty, exclusion and precariousness[1]. The field of sustainable development was later expanded to cover other areas. Indeed, article 21 of the framework law n ° 99-12 bearing national charter of the environment and sustainable development (BO n ° 6240 of the 18 joumada I 1435 - March 20, 2014) stipulates that the public establishments and State companies, in particular those engaged in an industrial and commercial activity, and private companies commit themselves to respect the principles and the objectives provided by this law namely:

- Adopt responsible modes and methods of supply, exploitation, production and responsible management that meet the requirements of sustainable development;
- Periodically evaluate the impact of their activities on the environment;
- Reduce to a minimum the negative effects of their activities on the environments and ecosystems in which they are located;
- Contribute to the dissemination of the values of sustainable development by requiring their partners, including their suppliers, to respect the environment and those values;
- Adopt a transparent communication on their environmental management.

To achieve these goals, a number of funds and mechanisms have been created, including the National Environment and Sustainable Development Fund, the Industrial Pollution Control Fund and the Clean Development Mechanism. The purpose of these funds and mechanisms is to finance and support actions and initiatives that promote sustainable development.

In line with this framework law, a legislative framework concerning the regulatory standards has been elaborated, it is the law n ° 11-03 relative to the protection and the development of the environment, of the law n ° 10-95 on water, the law n ° 13-03 on the fight against the pollution of the atmosphere, the law 28-00 on the management of the household waste, of the law n ° 22-10 relating to the use of degradable or biodegradable plastic bags and bags and Law No. 08-01 on quarrying.

A legislative framework for voluntary standards has been developed as well.

We notice the inadequacy of the legal framework governing sustainable development in companies in Morocco given the lack of legislation that contribute to the adoption of modes and methods of supply, exploitation, production and responsible management, responding to the requirements of sustainable development.

Like the legislative framework, the CGEM launched in 2007 a process of labeling companies with the CSR (Corporate Social Responsibility) label. So far, the number of certified companies has reached 92 companies, of which 32% are SME[2]. The aim of this label is to make socially responsible companies known so as to value them with their partners. It is granted by the

CGEM, for a renewable period of three years, to companies that respect a number of conditions namely: respect for human rights, continuous improvement of working conditions and professional relationships, protection of the environment, prevention of corruption,

---

[1] Report of the Economic and Social Council, 2017.
[2] CGEM Moral Report (2018).

respect of the rules of healthy competition, strengthening of the transparency of corporate governance rules, respect for the interests of customers and consumers, promotion of the social responsibility of suppliers and subcontractors and the development of societal commitment[1].

In 2017, the CGEM created an observatory of corporate social responsibility in Morocco (ORSEM) with the aim of promoting, exchanging and highlighting CSR practices in Morocco.

2. Taking sustainable development into account in SME marketing

In Morocco, SMEs account for nearly 95% of the country's productive fabric, contribute to 40% of private investment and 30% of exports (Bentaleb and Louitri, 2011). There are three types of studies in Morocco that have focused on marketing and / or sustainable development in SMEs.The first type focused on the study of the marketing function in SMEs.Indeed, in the majority of the 25 SMEs surveyed in the region of Meknes, it was noted the lack of marketing research and strategic marketing, and that marketing is reduced to its operational dimension at the expense of its strategic dimension (Ailli, 2011). In the same vein, Mekkaoui and AitHeda (2006), in their study conducted in 13 SME exporters of fruits and vegetables, note the centralization of marketing decisions at the level of the general manager, the absence of qualified marketing executives, and the lack of financial means to implement marketing techniques.

The second type of study focuses on sustainable development in SMEs, specifically, Hattabou and Louitri (2011) in their study on the relationship between sustainable development and SME management show that at the strategic level, due to the inadequacy of the means necessary for the SME, the adoption and the implementation of a sustainable development approach, could put the SME in difficulty. In the same vision, Oubihi and Elouidani (2017), in their study of 42 SMEs in the agrifood industry, show that the high cost and lack of financial resources are the main bottlenecks in the engagement of SMEs in actions to protect the environment. They also underline the lack of knowledge of SMEs of the pollution abatement fund set up by the Ministry of the Environment to help polluting industries adopt healthier environmental practices.

In a comparative study between Morocco and Tunisia on the national and international institutional framework of CSR, Labaronne and Gana-Oueslati (2011) underline that Moroccan SMEs adopt CSR to retain stakeholders, improve brand image and economic performance, respect applicable legislation and ethics. Like these favorable factors, there are obstacles to the implementation of CSR in Moroccan SMEs that are manifested in the lack of financial, human, informational, and the doubt on the economic opportunity of this approach. . They also underline that for Maghreb SMEs the social responsibility of the company appears as a necessary condition for gaining international market share, their exports depend in part on managers' commitment to CSR.

These results are similar to the results of some researchers in the context of French SMEs. Indeed, Bazillier et al. (2011), in their study of SME practices in the area of sustainable development and corporate social responsibility, show that SMEs are unaware of usable tools, existing support and institutional partnerships and focus their actions in areas where legal obligations are strong.

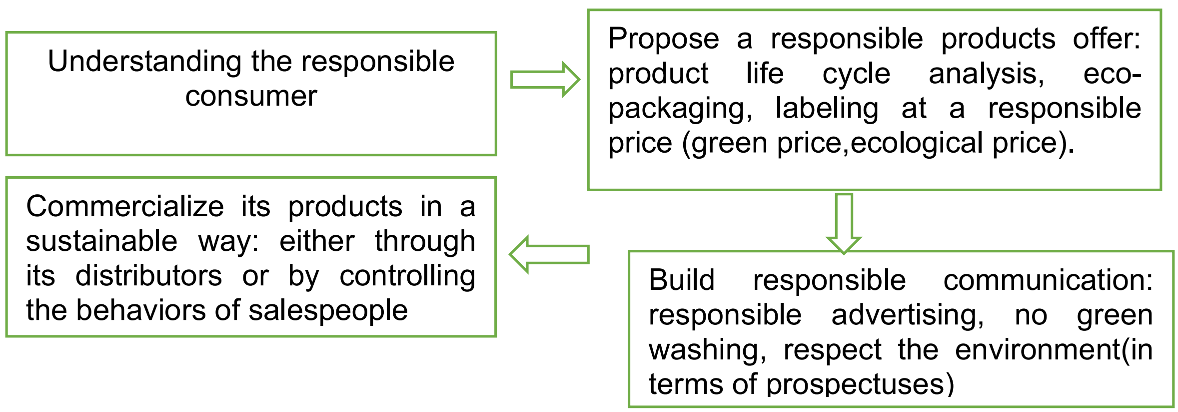
For their part, Temri and Fort (2009) state that the personal characteristics of the owner-manager influence the commitment of SMEs to sustainable development. Small businesses suffer from the lack of power, know-how, financial, temporal and human resources to engage

[1] CGEM Guide (2008), "Presentation and rules for the attribution of the CGEM label for the social responsibility of the company".

in sustainable development actions. They consider these actions as heavy costs, difficult to pass on to consumers.

Unlike the results that were presented, Bocquet (2015) shows in the case study of the SME Biolait that sustainable strategies are not reserved only for global multinationals and that competitiveness issues are insufficient to justify the choice. a sustainable strategy; it is the issues of corporate responsibility and beliefs that play a vital role.

The third type of study focuses on the study of the relationship of marketing with sustainable development in SMEs. Studies in this field are very rare in Morocco. As an example, the study conducted by Benabboud and Mekkaoui (2014) in the Souss-Massa-Draa region which has resulted in the proposal to SMEs producing local products a sustainable marketing mix to counter increasing competition and promote these products to customers. However, this proposal lacks operationality compared to another study that was conducted by Lavorata (2012), after which he proposed a methodology for the adoption of sustainable marketing in SMEs. The following figure shows the components of this methodology.



The methodology for building sustainable marketing (Source: Lavorata, 2012)

In the same vein, Marso (2013) suggests a marketing approach to promote sustainable development in Moroccan tourism businesses in general. However, this approach did not take into account the specificities of Moroccan SMEs operating in the tourism sector.

Conclusion:

Sustainable development and marketing are two interrelated concepts. Preserving the interests and well-being of the customer and other stakeholders of the company is part of the missions assigned to marketing (stakeholder marketing) and sustainable development. In the Moroccan context, efforts have been made since 2005 by the State and the private sector to promote sustainable development and CSR in public institutions and public and private enterprises. To do this, a legal arsenal has been developed, funds have been created, a CSR labeling has been put in place. These efforts remain insufficient to implement CSR and sustainable marketing in Moroccan SMEs. We deplore the lack of legislation to contribute to the adoption of methods and methods of supply, exploitation, production and responsible management, meeting the requirements of sustainable marketing. We also regret the lack of know-how and financial resources available to SMEs, the lack of awareness of incentives for SMEs to implement CSR.

At the same time, there is a scarcity of research in Morocco that has examined the relationship between marketing and sustainable development in SMEs. Existing studies focus mainly on the proposal to SMEs of a sustainable marketing approach that lacks operationality. In this context, a number of questions arise:

- To what extent does the marketing of CSR-labeled SMEs contribute to promoting sustainable development in these SMEs?

- Can we talk about sustainable marketing in SMEs without a CSR label?

- Do Moroccan SMEs commit to sustainable development within the limits of respect for the legislative framework?

- Do Moroccan SMEs engage in sustainable marketing for reasons of competitiveness or reasons related to their social responsibilities and beliefs?

- Is the behavior of SMEs in terms of sustainable marketing heterogeneous?

ANALYSIS OF FACTORS SUPPORTING SWOT IN ORGANIZATIONAL STRATEGIC PLANNING

Rogério Morais[1*]
José Dirnece Tavares Paes[2]

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*

JEL Classification: Estr; Anal; Missi

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

[1] Ph. D, Universidade Metodista Piracicaba, Rodovia do Açucar, Piracicaba, S. P, CEP: 13423-170, Brazil. Email: rogeriosmorais@uol.com.br
[2] MS. Faculdade Sul Mineira, Rua. Dr. Mello Viana, 75, Centro, São Lourenço, MG, CEP: 37470-000. Email: dirluci@uol.com.br
*Corresponding author

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. T*he 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.

REFERENCES

Abdallah, C., and Langley, A., 2014. The double edge of ambiguity in strategic planning. *Journal of Management Studies,* 51(2), pp.235-264.

Alencar, M., 2011. The evolution of telecommunications in Brazil. *IEEE Communications Magazine*, 49, pp.4-8.

Almeida, C. M. V. B., Rodrigues, A. J. M., Agostinho, F., and Giannetti, B. F., 2016. Material selection for environmental responsibility: The case of soft drinks packaging in Brazil. *Journal of Cleaner Production*, 30(1), pp.1-7.

Barnes, J., and Liao, Y., 2012. The effect of individual, network, and collaborative competencies on the supply chain management system. *International Journal of Production Economics*, 140(2), pp.888-899.

Barros, M., 2014. Tools of legitimacy: The case of the Petrobras corporate blog. *Organization Studies*, 35(8), pp.1211-1230.

Borges, G., Domingues, M., and Cordeiro, R., 2016. Student's trust in the university: Analyzing difference between public and private higher education institutions in Brazil. *International Review on Public and Nonprofit Marketing*, 13(2), pp.119-135.

Bowersox, D. J., Closs, D. J., and Cooper, M. B., 2007. *Gestão da cadeia de suprimentos e logística [Supply Chain Management and logistic].* Rio de Janeiro: Elsevier.

Briggs, W., and Shore, B., 2007. Competitive analysis of enterprise integration strategies. *Industrial Management & Data Systems*, 107(7), pp.925-935.

Calixto, F., Formigoni, A., and Stettiner, C. F., 2011. *Logística: um enfoque prático [Logistics – A Practical Approach].* São Paulo: Saraiva.

Cavusgil, S. T, Knight, G, and Riesenberg, J. R., 2010. *Negócios internacionais: estratégia, gestão e novas realidades [International business: strategy, management and new realities].* São Paulo: Pearson.

Clarke, A., and Fuller, M., 2010. Collaborative strategic management: Strategy formulation and implementation by multi-organizational cross-sector social partnerships. *Journal of Business Ethics*, 94, pp.85-101.

Claver-Cortés, E., Pertusa-Ortega, E. M., and Molina-Azorín, J. F., 2012. Characteristic of organizational structure relating to hybrid competitive strategy: Implications for performance. *Journal of Business Research*, 65(7), pp.993-1002.

D'aveni, R. A., 2010. The age of temporary advantage. *Strategic Management Journal*, 31(13), pp.1371-1385.

Darosi, G.C.M., and Anderle, D.F., 2014. Analysis of Scientific Production about Strategic Planning Situation (SPS). *Magazine Espacios*, 35, pp.4.

De Oliveira, L. R., and Schilling, M. C. L., 2011. Analysis of nursing service in the planning process in hospital. *REGE Revista de Gestão*, 18, pp.225-243.

Degen, R. J., 2009. *O empreendedor: Empreender como opção de carreira [The entrepreneur: undertake as a career option]*. São Paulo: Pearson.

Dibrell, C., Craig, J. B., and Neubaum, D. O., 2014. Linking the formal strategic planning process, planning flexibility, and innovativeness to firm performance. *Journal of Business Research*, 67(9), pp.2000-2007.

Doherty, N. F., and Terry, M., 2013. Improving competitive positioning through complementary organisational resources. *Industrial Management and Data Systems*, 113(5), pp.697-711.

Elgazzar, S. H, Tipi, N. S, Hubbard, N. J, and Leach, D. J., 2012. Linking supply chain processes performance to a company's financial strategic objectives. *European Journal of Operational Research*, 223(1), pp.276-289.

Fred, G., 2011. Brazil's bizjet phenom. *Aviation Week & Space Technology*, 173, pp.50.

Frezatti, F., Aguiar, A. B., Guerreiro, R., and Gouvea, M. A., 2011. Does management accounting play role in the in planning process? *Journal of Business Research*, 64(3), pp.242-249.
Greckhamer, T., 2010. The stretch of strategic management discourse: A critical analysis. *Organization Studies*, 31(7), pp.841-871.
Grinstein, A., 2008. The relationships between market orientation and alternative strategic orientations: A meta-analysis. *European Journal of Marketing,* 42(1/2), pp.115-134.
Han, C., Portinfiel, T., and Li, X., 2012. Impact of industry competition on contract manufacturing: an empirical study of U. S. manufactures. *International Journal of Economics*, 138(1), pp.159-169.
Hitt, M., Bierman, L., Shimizu, K., and Kochhar, R., 2001. Direct and moderating effects of human capital on strategy and performance in professional service firms: A resource-based perspective. *Academy of Management Journal*, 44(1), pp.13-28.
Hooley, G., Piercy, N., and Nicouland, B., 2011. *Estratégia de marketing e posicionamento competitivo [Marketing strategy and competitive positioning].* São Paulo: Pearson.
Hoskisson, R., Wan, P. W., Yiu, D., and Hitt, M., 1999. Theory and research in strategic management: swings of a pendulum. *Journal of Management*, 25, pp.417-456.
Kester, L., Griffin, A., Hultink, E. J., and Lauche, K., 2011. Exploring portfolio decision-making processes. *Journal of Product Innovation Management*, 28, 641-661.
Klag, M., and Langley, A., 2014. Critical junctures in strategic planning: Understanding failure to enable success. *Organizational Dynamics*, 43(4), pp.274-283.
Kluyver, C. A, and Pearce, J. A., 2010. *Estratégia: uma visão executiva [Strategy – An Executive Overview].*3rd ed. São Paulo: Pearson.
Kotler, P., and Armstrong, G., 2011. *Princípios de marketing [Principles of Marketing].* São Paulo: Pearson.
Lee, H., Kim, M. S., and Park, Y., 2012. An analytic network process approach to operationalization of five forces model. *Applied Mathematical Modelling*, 36(4), pp.1783-1795.
Lee, K. C., Lee, H., Lee, N., and Lim, J., 2013. An agent-based fuzzy cognitive map approach to the strategic marketing planning for industrial firms. *Industrial Marketing Management*, 42(4), pp.552-563.
Matos, O. A., Venâncio, D. M., and Dutra, A., 2013. Strategic management in higher education institutions: Mapping of scientific publications in the period 1997-2012. *Magazine University Management in Latin America – GUAL*, 7, pp.106-127.
McHatton, P. A., Bradshaw, W., Gallagher, P. A., and Reeves, R., 2011. Results from a strategic planning process benefits for a nonprofit organization. *Nonprofit Management and Leadership*, 22(2), pp.233-249.
Mintzberg, H., Ahlstrand, B., and Lampel, J., 2010. *Safári de estratégias [Safari strategy].* 2nd ed. Porto Alegre: Bookman.
Morgan, N., 2012. Marketing and business performance. *Journal of the Academy of Marketing Science,* 40(1), pp.102-119.
Nicoleta, B., and Alina, V., 2014. Organizational strategic planning of human resources. *Management Strategies*, 7, pp.606-610.
Olson, E. M., Slater, S. F., and Hult, G. T. M., 2005. The importance of structure and process to strategy implementation. *Business Horizons*, 48(1), pp.47-54.
O'Reilly, C. A., Caldwell, D. F., Chatman, J. A., Lapiz, M., and Self, W., 2010. How leadership matters: The effects of leaders alignment on strategy implementation. *Leadership Quarterly*, 21(1), pp.104-113.
Perera, F. D. P. R., and Peiró, M., 2012. Strategic planning in healthcare organizations. *Revista Española de Cardiología (English Edition),* 65(8), pp.749-754.

Phillips, P., and Moutinho, L., 2014. Critical review of strategic planning research in hospital and tourism. *Annals of Tourism Research*, 48, pp.96-120.
Porter, M. E., 2009. *Competição: on competition [Competition: On competition]*. Rio de Janeiro: Elsevier.
Priem, R. L., Li, S., and Carr, J. C., 2012. Insights and new directions from demand-side approaches to technology innovation, entrepreneurship, and strategic management research. *Journal of Management*, 38(1), pp.346-374.
Rajasekar, J., and Al Raee, M., 2013. An analysis of the telecommunication industry in the Sultanate of man using Michael Porter's competitive strategy model. *Competitiveness Review,* 23(3), pp.234-259.
Scorsolini, F., 2012. Mission, vision and values as speech marks in work organizations. *PSICO*, 43(3), pp.325-333.
Singh, R. K., Garg, S. K., and Deshmukh, S. G., 2008. Strategy development by SMEs for competitiveness: A review. *Benchmarking: An International Journal*, 15(5), pp.525-547.
Tecles, P., and Tabak, B. M., 2010. Determinants of bank efficiency: The case of Brazil. *European Journal of operational Research*, 207(3), pp.1587-1598.
Teece, D. J., 2010. Business models, business strategy and innovation. *Long Range Planning*, 43(2-3), pp.172-194.
Thompson, L. L. (2009). *O Negociador [The Negotiator].* São Paulo: Pearson.
Tortola, J. O., 2007. Grocers's best friend: The global pet expo last month dished out plenty of evidence that the pet product market is booming. *Progressive Grocer*, 86, 21.
Varadarajan, R., 2010. Strategic marketing and marketing strategy: Domain, definition, fundamental issues and foundation premises. *Journal of the Academy of Marketing Science*, 38(2), pp.119-141.
Yüksel, İ., 2012. An integrated approach with group decision making for strategy. *International Journal of Academic Research in Business and Social Sciences*, 2(11), pp.134-161.
Zaccarelli, S. B., 2012. *Estratégia e sucesso nas empresas. [Strategy and success in companies].* 2nd ed. São Paulo: Saraiva.
Zheng, W., Yang, B., and McLean, G. N., 2010. Linking organizational culture, structure, strategy, and organizational effectiveness: *Mediating role of knowledge management. Journal of Business Research*, 63(7), pp.763-771.