

Masters International R&D Center

MIRDEC 2017

MIRDEC-6th,
International Academic Conference
Social Sciences, Multidisciplinary, Economics,
Business and Finance Studies
(**Global Meeting of Social Science Community**)

CONFERENCE PROCEEDINGS LISBON, PORTUGAL

Full Paper Series

Editors
Kemal Cebeci
Adam Pawlicz
Asmahan Altaher

Radisson Blu Hotel, Lisbon, Portugal
27-29 November 2017

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Krzysztof Wasniewski

Technological Change as Intelligent, Energy-Maximizing Adaptation

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*Possibilities of Presentation of Czech Students' Media Projects in the Media Market
(Case Study)*

Tomas Bata University in Zlin, Czech Republic

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LISBON 2017

ANNA MOZDZIERZ¹ AND RADOSLAW SLUSARCZYK²

THE SOCIO-ECONOMIC EFFECTS OF FISCAL CONSOLIDATION: GERMANY VERSUS HUNGARY³

Abstract

The aim of this article is to assess the socio-economic effects of fiscal consolidation episodes in Germany and Hungary, which occurred between 2003 and 2015. A detailed analysis of the fiscal consolidation strategies of Germany and Hungary that applied different public finance discipline instruments, will attempt to verify the thesis that fiscal adjustments based mainly on the expenditure side are considered as a strategy more appropriate to ensure the sustainability of consolidation and that they show a weaker correlation with recessions than income-based adjustments.

The conventional way of identifying fiscal consolidation episodes and its scale is to use a cyclically adjusted primary balance (CAPB). The authors demonstrate weaknesses in the method of determining fiscal policy type by identifying changes in the production gap under fiscal impulse measured by the changes in CAPB. Difficulties in the measurement of the capacity of potential output and the elasticity of the budget balance in relation to the production gap induced the authors to apply the qualitative method. Discretionary measures motivated by the determination to reduce the budget deficit irrespective of the business cycle were identified on the basis of the analysis of the convergence and stability programs of the surveyed countries, as well as the reports which allow to assess the degree of their implementation.

The article assesses the impact and sustainability of the applied consolidation strategies including channels for the transmission of fiscal instruments to the economy.

Keywords: Fiscal policy, fiscal consolidation, fiscal strategies, fiscal impulse, cyclically adjusted primary balance, output gap

JEL Codes: H60, H62, E62

Introduction

Fiscal consolidation is the subject of theoretical controversy and practical disputes and its main focus is the dilemma of choice of consolidation instruments. The rank of the problem is high because individual instruments of income and expenditure affect the economy through different channels. Reducing public expenditure on investment and consumption will affect the amount of aggregate demand. Limiting public transfers or increasing income taxes by reducing disposable income will also affect aggregate demand.

The aim of this article is to assess the socio-economic effects of fiscal consolidation episodes in Germany and Hungary that occurred between 2003 and 2015. Both countries selected for study disciplined public finances by choosing different fiscal consolidation strategies. Germany relied on restrictions on public spending (austerity policy) while Hungary decided to increase the rate of taxation. Given that countries differ significantly in terms of socio-economic development, public finance structures and consolidation needs, the choice of different consolidation options seems reasonable.

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While Germany is a leading economy in the EU, which has a positive impact on public finances, Hungary has undergone a process of transition from a centrally controlled economy to a market economy, which has caused additional tensions in public finances. In 2015, GDP per capita in PPS in Hungary (68%) was almost double the value of this indicator for Germany (124%)⁴. In the OECD opinion (2012, pp. 13-14) there were consolidation needs in both countries, but their degree and causes were different. In Hungary (group B) stronger consolidation needs were identified, resulting from an obvious market pressure (Countries under distinct market pressure). Germany was classified in group C, characterizing countries with high deficits and/or public debt but without market pressures. (Countries with substantial deficits and/or debt but less market pressure).

The conventional way of identifying fiscal consolidation episodes and their scale is to use a cyclically-adjusted primary balance (CAPB). The adjustment of cyclical primary balances are the basis for determining fiscal impulse. The response of the production gap to a given fiscal impulse should therefore allow to determine the type of fiscal policy pursued in a given period. The article analyses CAPB changes under the impact of production gap changes based on OECD Economic Outlook reports for 2011, 2012, 2015 and 2017. As a result, periods of difficulty in making a clear assessment of discretionary fiscal policy were identified. The article illustrates the weaknesses of the conventional method (quantitative) and then evaluates the fiscal consolidation based on detailed analysis of the strategies used. Discretionary measures motivated by the determination to reduce the budget deficit irrespective of the business cycle phase were identified on the basis of analysis of convergence and stability programs of the surveyed countries as well as the reports to assess the degree of their implementation. The impact and sustainability of the consolidation strategies used, including the transmission of fiscal instruments to the economy was then assessed. The subject of the analysis was, among others, changes in consumption, investment, aggregate demand, inflation and disposable income.

1. The impact of consolidation instruments on the economy in the light of literature on the subject

In theoretical considerations and empirical studies, the main focus is on the impact of fiscal instruments on economic growth with a distinction between short and long periods of time. While in the short term one can expect to influence the demand, in the long run - on potential GDP. Almeida et al. (2013, p.22) show that expenditure-side consolidation (reduction of public consumption) will have the greatest negative impact on production in the first year of consolidation. From the second year onwards, the effects of a tax-based consolidation economy will lead to greater losses for GDP than consolidation strategies based on reduced public spending. Coenen et al. (2012, pp. 22-68) also point to a stronger multiplier effect of expenditure (with a small advantage of public investment over public consumption) than tax instruments. A strong stimulus effect, comparable to investment expenditure, is also shown by targeted public transfers (Coenen et al., 2012, p. 52). Almeida et al. (2013, p. 21) demonstrate that reducing public transfers diminishes household wealth, leading to a decrease in consumption and an increase in working hours. Guajardo, Leigh and Pescatori (2011) claim that the consolidation based primarily on taxes results in a greater decrease in private demand than on a spending side. Limiting public consumption (limiting public spending) in the short term will reduce the demand pressure, which will result in decrease in GDP. The reduction in demand pressure is conducive to the depreciation of the exchange rate, which may stimulate the growth of international competitiveness of domestic production, which improves the balance of trade (Almeida et al., 2013, pp. 21-22). Thus, the negative, recessive effect of fiscal consolidation observed in the short term due to the reduction of public consumption may be partially offset by the positive effects of increased international competitiveness of production. In the case of economy with an independent monetary policy, the interest rates will be crucial in adjusting.

⁴ EU28=100.

In the context of the impact of reduction of public expenditure on economic growth as well as on the effectiveness of fiscal consolidation, the generic structure of expenditure covered by the restrictions is of particular importance. Both in the short run and in the long term, spending cuts on education, health and public investment, such as transport, are strongly negatively affected. These expenditures are considered developmental and affect the growth potential. Ahrend R. et al. (2006, p. 21) indicate that the likelihood of a correction as well as larger adjustments increases as more non-capital expenditures are reduced. Disciplining public finances by limiting current expenditure can be a signal for financial markets and traders that fiscal consolidation is credible. Table 1 summarizes the impact of fiscal consolidation instruments on growth, capital and current account, as a result of OECD research and extends to the work of other researchers in this field. It included the results of estimates of the impact of expenditure on various areas for long-term growth, carried out in 2013 by Barbiero, O. and B. Cournède (2013), on the basis of database for 17 OECD countries for a period of nearly 40 years.

Table 1. Assessment of growth and equity effects of fiscal consolidation instruments

Item	Growth		Equity		Current account ^{a)}
	Short-term	Long-term	Short-term	Long-term	Short – to medium-term
Spending cuts					
Education	--	--	-	--	+
Health services provided in kind	--	-	-	-	++
Other government consumption (excluding family policy)	--	+	-		+
Pensions		++			++
Sickness and disability payments	-	+	--	-	++
Unemployment benefits	-	+	-		++
Family	-	-	--	--	+
Subsidies	-	++	+	+	+
Public investment	--	--			++
Revenue increases					
Personal income taxes	-	--	+	+	+
Social security contributions	-	--	-	-	
Corporate income taxes	-	--	+	+	++
Environmental taxes	-	+ ^{b)}	-		+
Consumption taxes (other taxes on immovable property)	-	-	-		++
Recurrent taxes on immovable property	-				+
Other property taxes	-		++	+	+
Sales of goods and services	-	+	-	-	+

Note: a) current account effects refer to a deficit country and would switch the sign in the case of a surplus country; b) This + sign indicates positive welfare effects as the long term impact on output narrowly defined as GDP may be ambiguous.
Source: Cournède B. et al., 2013, p. 19.

It is worth noting that Blanchard and Cottarelli (2010) have formulated ten recommendations that enable fiscal consolidation to combine short-term and long-term growth requirements. They pay attention,

among others, to clarification of medium-term fiscal objective and its implementation over a period of 4-5 years. They recommend that consolidation strategies take into account the use of tools that support growth potential. For highly developed countries characterized by high levels of public expenditure, strategies are based on expenditure cuts. For countries where the share of public revenues to GDP is low, they do not exclude adjustment measures on the income side.

Consideration of the macroeconomic impact of the application of specific fiscal instruments under the consolidation strategy should also take into account the pace of consolidation. A fast-paced consolidation may produce faster results but in the short term it will have a greater negative impact on output and wealth. Taking into account the political risks that this dependency implies it discloses more advantages of slow consolidation. The slower pace of consolidation has a positive macroeconomic impact, especially in the case of large adjustments (Tsibouris et al., 2006, p. 1).

In the literature on the subject, fiscal consolidation strategies are also considered from the standpoint of ensuring the sustainability of consolidation. The studies of Alesina and Ardagna (2010, pp. 1-2) show that fiscal adjustment based mainly on the expenditure side is a more appropriate strategy as it is to bring about a larger and longer-lasting effects of lowering the ratio of public debt to GDP. In the case of fiscal adjustments based on expenditure, there is a weaker correlation with recessions than with income-based adjustments. They also point out that, in some cases, there is an expansive fiscal tightening on the expenditure side.

2. Weaknesses and limitations of conventional measure of discretionary fiscal policy change

Conventional measures used to assess fiscal policy by the European Commission and other international organizations (e.g. OECD, ECB, IMF) are: cyclically-adjusted budget balances (CABs), cyclically-adjusted primary budget balances (CAPB) and structural balances (SB). The idea of a cyclically-adjusted balance is to clear the nominal balance of the effects of fluctuations in order to assess the fiscal position if the economy was at the level of potential output. Balance cleared of cyclical deviations (CAB) is subject to modifications to better recognize the type of discretionary policy. Once the one-offs and temporary measures are excluded from CAB, a structural balance is established. The cyclically-adjusted budget balances together with structural balance, are the basis for fiscal surveillance in the EU, revised in 2011 as part of the new EU economic governance. Compared with the previous supervisory system, the importance of the structural balance increased after the reform, which is the basis for assessing the implementation of the medium-term budgetary objective (MTO) and is expected to ensure the sustainability of public finances or rapid progress in achieving it.

The primary cyclically-adjusted primary budget balance is derived by adding back net interest payments to the cyclically-adjusted balance, which are not expenditures of a discretionary nature. The OECD (2017a) indicates that changes in CABP may be used as a rough indicator of fiscal discretionary change. (Changes in the primary cyclically-adjusted balance can be used as a rough indicator for changes in discretionary fiscal policies). This indicator is used to measure the fiscal impulse, identify fiscal episodes and evaluate the success and sustainability of fiscal consolidation.

The concept of a cyclically-adjusted balance and its subsequent modifications is attractive and undoubtedly contributes to the development of the theory of economics and public finances. However, the application of concepts in practice, fiscal policy and fiscal surveillance should be carried out with greater caution due to methodological uncertainties. The main objection concerns the methods for determining CAB and its components based on potential production, which is unobservable, is not verifiable (Brandner et al., 1998; D'Auria et al., 2010). There is no-one fully accepted way of designating it. It is difficult for the European Commission to use the methodology to estimate the growth potential of both the actual production method using statistical filters as well as the Cobb-Douglas production

method. The use of the trend function is especially important in the new EU countries because of the short time series of data and thus the greater risk of measurement errors. Calculations using different methods lead to other results. Analysis of data from the publication of subsequent reports of the European Commission allows to capture the differences in estimates of the growth potential in a given year.

The risk of erroneous measurements CAB associates with the estimation of the short-term flexibility of individual budgetary revenue and budgetary expenditure relative to GDP. Until 2013, the flexibility parameters were estimated by OECD in 2005 based on data from 1995 to 2004. The CAB estimate for 2006 - 2013 did not include changes in income flexibility due to changes in tax policy (i.e. changes in tax rates, introduction or liquidation of tax reliefs) in this period. The update of the flexibility indicators was made only in 2014 on the basis of the data for the years 2002-2011. Table 2 presents the estimates of the elasticity parameters for the various categories of public revenue and expenditure for 2005 and 2016 for the examined countries - Germany and Hungary.

Table 2. Individual elasticities of revenue and expenditure categories with respect to the output gap

Methodology	PIT	CIT	Indirect taxes	Social security contributions	Unemployment-related expenditure
Germany					
2005	1.61	1.53	1.00	0.57	-5.00
2014	1.87	1.91	1.00	0.60	-3.30
Difference	0.26	0.38	0.00	0.03	1.70
Hungary					
2005	1.70	1.44	1.00	0.63	-3.30
2014	1.73	2.21	1.00	0.76	-1.25
Difference	0.03	0.77	0.00	0.13	2.05

Source: 2005 - Girouard and Andre (2005); 2014 - OECD (2014).

The evolution of tax systems has led to a change in the share of individual types of taxes in total income, while the weight system has also not been updated. Table 3 shows the share of individual types of income in total income on the basis of the average for the years 1995-2002 and currently used for the years 2002 - 2011.

Table 3. Shares of revenue categories (% of total revenue) average 1995-2004 and 2002-2011

Methodology	PIT	CIT	Indirect taxes	Social security contributions	Non-tax revenue
Germany					
2005	24.01	2.66	28.23	45.11	n.a.
2013	20.25	5.74	24.99	40.06	8.96
Hungary					
2005	17.92	6.46	40.74	34.87	n.a.
2013	16.41	4.28	35.84	29.15	14.32

Source: Note: n.a. - not applicable.

Source: 1995-2004 – 2002-2011: - Girouard and Andre (2005); Mourre et al., 2014, p. 30.

The 2005 methodology did not include non-taxable income. In the meantime, these, unlike the other categories of income that follow the real output cycle, have a poor response or lack of business fluctuations. The weight of non-taxable income will therefore affect the cyclical component of public revenue. The new methodology takes account of this dependency. The problem with CAB's estimation, however, was even more serious when it turned out that the assumptions were wrongly made at the outset. Estimating the cyclical component of income the fact was ignored that public revenue is a component of GDP. Given that income elasticity is close to unity, cyclical changes in income follow the cyclicity of GDP. On the contrary, in the case of expenditure, some of which is cyclical (unemployment benefits), it is assumed that the expenditure to GDP ratio is relatively stable over the whole cycle (Mourre et al., 2013). Given that the share of public expenditure in GDP in the EU28 is high (46.6% in 2016 and 50.1% in 2009) and shows variability irrespective of the business cycle, the estimates must have led to erroneous results and their interpretation. The error was most acute in the years of global financial crisis, in response to the significant increase in public expenditure in individual countries.

In 2013, a modification of CAB estimation method was introduced, which was to replace the sensitivity category with the semi-elastic category. The weakness of the previously used CAB estimation methodology was that the impact of the business cycle on the budget balance was studied, not to mention that the business cycle also influenced the production volume. The new method, thus, captures the response of the budget balance and its components to cyclical GDP change. In other words, it allows for a better interpretation of the estimates of CAB structural balance. The current approach is closer to the concept of a structural balance, understood as an estimate of how well the public finances would be, if the economy were to function fully at the expense of production. In CAB estimation method, its components were expressed in relation to real GDP rather than potential GDP. The change did not significantly affect the size of CAB balance but its components. This appears to be a significant increase in the cyclical component of expenditure, with a marked weakening of the cyclical component of public revenue.

The weaknesses of CAB estimation method and consequently the measurements resulting from its modification (CAPB and structural balance) lead to more careful interpretation and use in the EU fiscal surveillance system and national policies.

3. The difficulty of assessing the type of fiscal policy in Germany and Hungary based on CABP changes and the production gap in 2003-2015

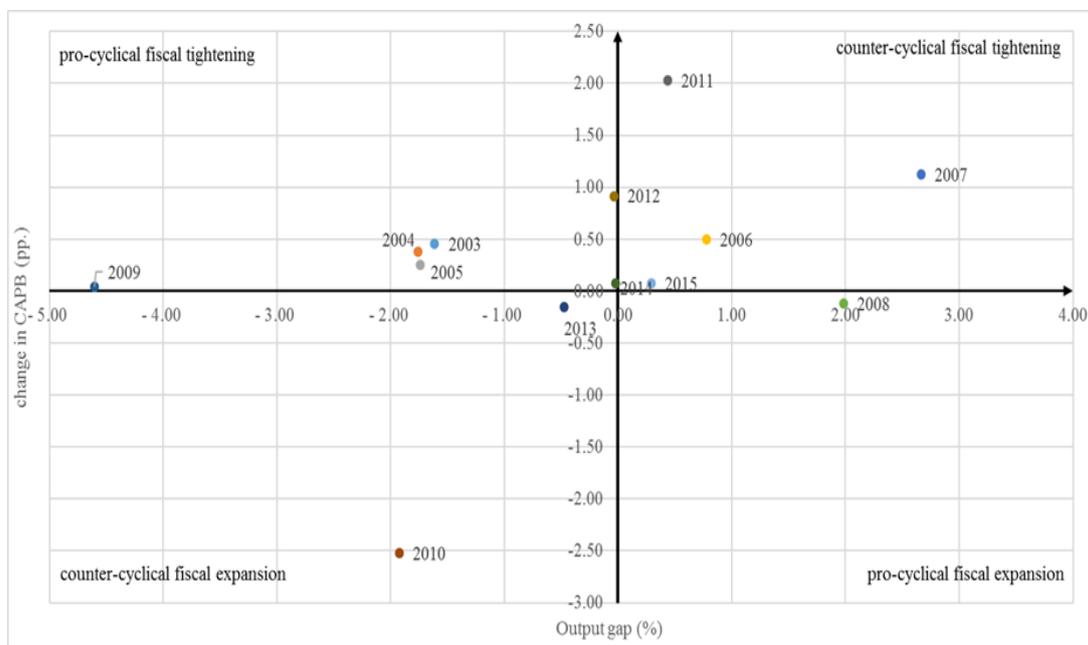
One of the main features of fiscal policy pursued by the state is its pro-cyclical or anti-cyclical nature. The answer to the question of its nature allows us to determine how much the state exercises one of the three basic functions identified by R. Musgrave, consisting in stabilizing the economy (Stiglitz, 2004, pp. 24-25). Hence, in the literature on the subject, the distribution of fiscal policy has spread into four types (Alesina et al., 2015):

- I. Counter-cyclical fiscal tightening
- II. Pro-cyclical fiscal tightening
- III. Counter-cyclical fiscal expansion
- IV. Pro-cyclical fiscal expansion.

Counter-fiscal consolidation occurs when the country in a given year increases CAPB (cyclically adjusted primary balance) in a positive production gap. The second type of fiscal policy occurs when CAPB increases are accompanied by a negative productivity gap in the economy. In contrast to two policies indicated, the third and fourth types are characterized by fiscal expansion as a reduction in CAPB. In the context of countercyclical fiscal expansion, changes in CAPB are accompanied by a

negative productivity gap. Pro-cyclical expansion occurs, however, in the situation of a positive production gap. Using the annual data on CAPB changes and the production gap, one can theoretically determine the type of fiscal policy in a given country. Based on the above-mentioned taxonomy, the types of fiscal policy applied by Hungary and Germany in 2003-2015⁵ were divided. For this purpose, the production gap estimates and the cyclical primary balance (CAPB) were used. Due to the fact that the European Commission does not publish the size of CABP, data from OECD report (Economic Outlook June 2017) were used. To illustrate this division, the individual observations (years) for both countries were placed in the coordinate system (see graphs 1 and 2). Axis 0X indicates the level of production gap, while axis 0Y represents changes in CAPB in a given fiscal year relative to the previous year.

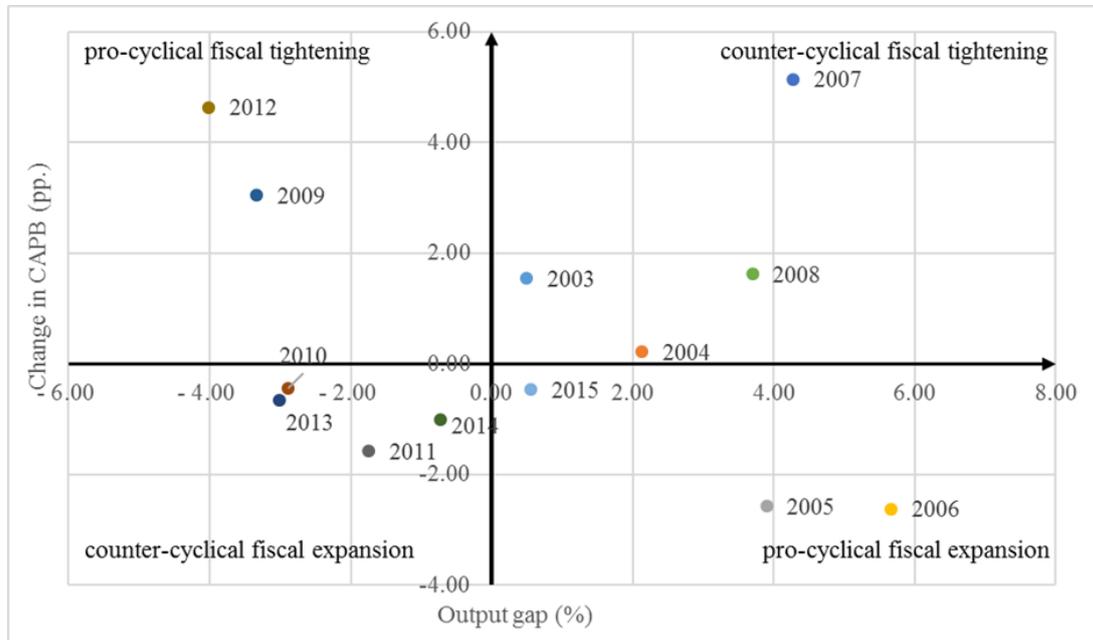
Figure 1. Fiscal policy map of Germany in 2003-2015



Source: Own study based on OECD data (2017b).

⁵Methodology of fiscal policy maps according to A. Alesina et al. (2015).

Figure 2. Hungary's fiscal policy map for 2003-2015



Source: Own study based on OECD data (2017b).

The positioning of points corresponding to each year in the coordinate system is to allow the assessment of the correctness of the fiscal instruments used. Thus, according to the methodology used involving production gap and CAPB in Germany, the pro-cyclical fiscal policy in the seven analysed years was followed by countercyclical policy in six years. On the other hand, in Hungary was 8 and 5 years respectively (see table 4).

Table 4. Types of fiscal policies in Germany and Hungary in 2003-2015 (based on the estimation of the production gap and CAPB)

Country	Counter-cyclical fiscal tightening	Pro-cyclical fiscal tightening	Counter-cyclical fiscal expansion	Pro-cyclical fiscal expansion
Germany	4	6	2	1
Hungary	4	2	4	3

Source: Own study based on OECD data (2017b).

However, it was previously pointed out that the analysis of fiscal impulses based on the production gap and CAPB has methodological weaknesses that may result in errors in the decision-making process based on it. In order to show the shortcomings of the conventional method, a comparison of the size of the production gap and the cyclically adjusted primary balance for Germany and Hungary was made on the basis of estimates from four selected OECD Economic Outlook reports: No. 90 - December 2011, No. 92 - December 2012, No. 98 - December 2015, No. 101 - June 2017.

The problem of the discrepancies in the production gap estimates was reflected in the analysed reports in the examined cases of Germany and Hungary (Table 5).

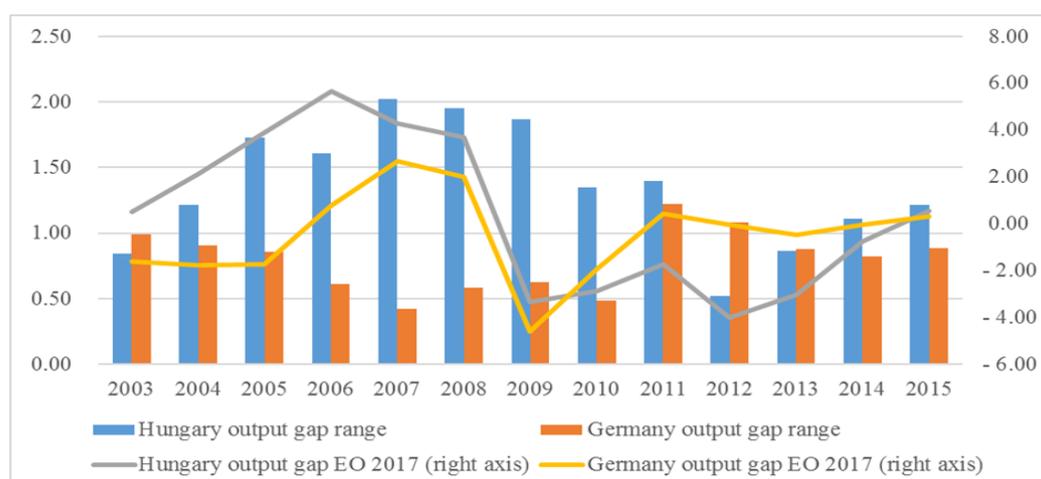
Table 5. Production gap in Germany and Hungary in 2003-2015

Year of publication	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Hungary													
2017	0.5	2.1	3.9	5.7	4.3	3.7	-3.3	-2.9	-1.7	-4.0	-3.0	-0.7	0.6
2015	1.0	3.2	5.1	6.8	5.4	4.7	-2.7	-2.5	-1.9	-4.5	-3.9	-1.8	-0.7
2012	0.2	2.0	3.4	5.4	3.8	3.5	-3.9	-3.2	-2.1	-4.0	-4.8	-4.7	n.a
2011	1.0	2.6	3.7	5.2	3.3	2.8	-4.6	-3.9	-3.1	-4.5	-4.3	n.a	n.a
Germany													
2017	-1.6	-1.8	-1.7	0.8	2.7	2.0	-4.6	-1.9	0.4	-0.0	-0.5	-0.0	0.3
2015	-1.5	-1.7	-1.7	0.6	2.3	1.4	-5.2	-2.4	-0.1	-0.7	-1.4	-0.8	-0.6
2012	-1.2	-1.6	-1.9	0.5	2.4	1.6	-4.8	-2.1	-0.5	-1.1	-2.1	-1.9	n.a
2011	-2.2	-2.5	-2.6	0.2	2.2	1.6	-4.5	-2.3	-0.8	-1.7	-1.2	n.a	n.a

Note: n.a. - not applicable.
Source: Own study based on OECD data (2017b).

Estimates of the production gap vary between reports and there are cases where the (+/-) sign of the production gap changes. This means that the level of actual product present in a given economy in the first report is classified below the potential product and in the second above its value. As a consequence of problems with the estimation of the production gap using example of Germany and Hungary, there appeared a gap in the estimates of the production gap in subsequent reports (hereinafter referred to as spread of the production gap)⁶. The size of the gap is shown in Figure 3. It shows that there may be significant differences in the size of the production gap between countries. The factor that determines their occurrence is the specificity of particular national economies.

Figure 3. Gap in estimates of production gap for Germany and Hungary in 2003-2015 with respect to production gap estimates in 2017



Source: Own study based on OECD data.

⁶ In determining the extent of the spread the projection of the production gap was not taken into account.

Difficulties in estimating the production gap affect CABP estimates used to determine the nature of fiscal policy. In order to show differences in the CAPB estimates, they were analysed according to the procedure adopted for the analysis of the production gap. Analysis of CABP estimates from individual reports (Table 6) indicates that methodological weaknesses may result in the identification of a cyclically-adjusted primary surplus or deficit for the same year. Observations that are particularly outstanding against the rest are CABP estimates for 2011 for Hungary. The spread of this variable exceeds as much as 9 pp, which is largely due to differences in the classification of the Hungarian government's takeover of open pension fund assets. In order to eliminate the impact of this transaction on the results of further analysis for the periods which it affected, the data on the underlying balance were adopted.

Table 6. Cyclically-adjusted primary balances in Germany and Hungary in 2003-2015

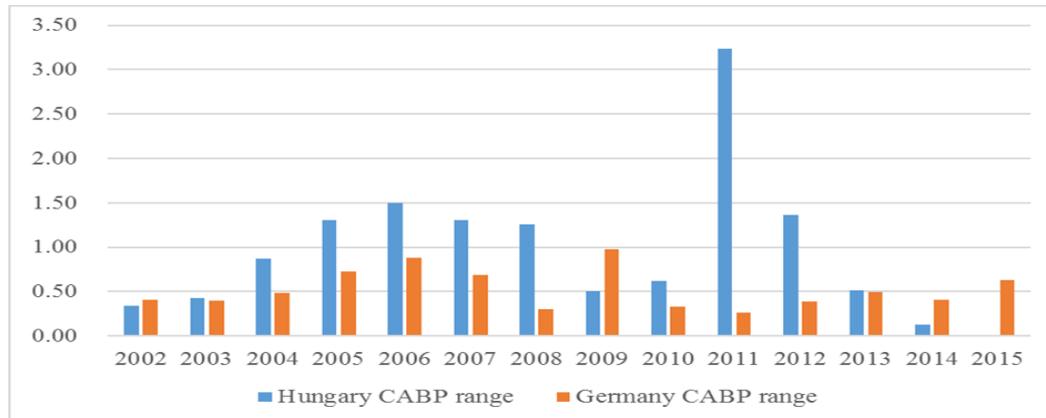
Year of publication	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Hungary													
2017	-3.69	-3.48	-6.05	-8.67	-3.53	-1.90	1.14	0.68	-0.89	3.74	3.07	2.05	1.59
2015	-4.02	-4.04	-6.71	-9.39	-4.14	-2.46	0.83	0.52	-0.83	4.02	3.59	2.18	1.60
2012	-3.60	-3.17	-5.40	-7.97	-3.04	-1.48	0.63	0.76	8.70	2.65	3.53	3.65	n.a
2011	-3.91	-3.42	-5.55	-7.89	-2.83	-1.20	0.94	1.14	8.77	2.40	2.63	n.a	n.a
Germany													
2017	-0.86	-0.49	-0.23	0.26	1.38	1.27	1.31	-1.21	0.82	1.73	1.58	1.65	1.73
2015	-0.91	-0.50	-0.24	0.32	1.54	1.53	1.57	-0.98	1.05	2.00	2.07	2.06	2.36
2012	-0.92	-0.38	0.21	0.98	2.01	1.55	0.81	-1.20	1.08	1.61	1.84	1.60	n.a
2011	-0.53	-0.01	0.48	1.14	2.07	1.57	0.59	-1.31	0.87	1.13	1.53	n.a	n.a

Note: n.a. - not applicable.

Source: own study based on OECD data

Figure 4 shows the spread in the estimates of the cyclically-adjusted primary budget balance (hereafter: CAPB stretch) for Germany and Hungary in 2003-2015. Interestingly, differences in the CAPB for Germany and Hungary do not always correspond to those in the production gap, which is reflected in the change in the methodology for estimating fiscal flexibility and expenditure as well as replacement of the concept of sensitivity with semi-elasticities.

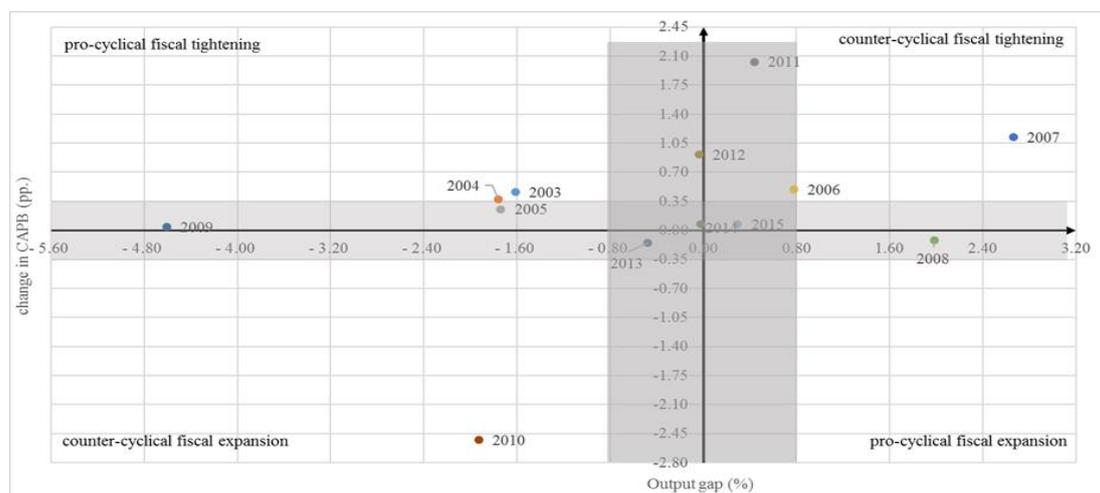
Figure 4. Projections in CABP estimates for Germany and Hungary in 2003-2015



Source: Own study based on OECD data.

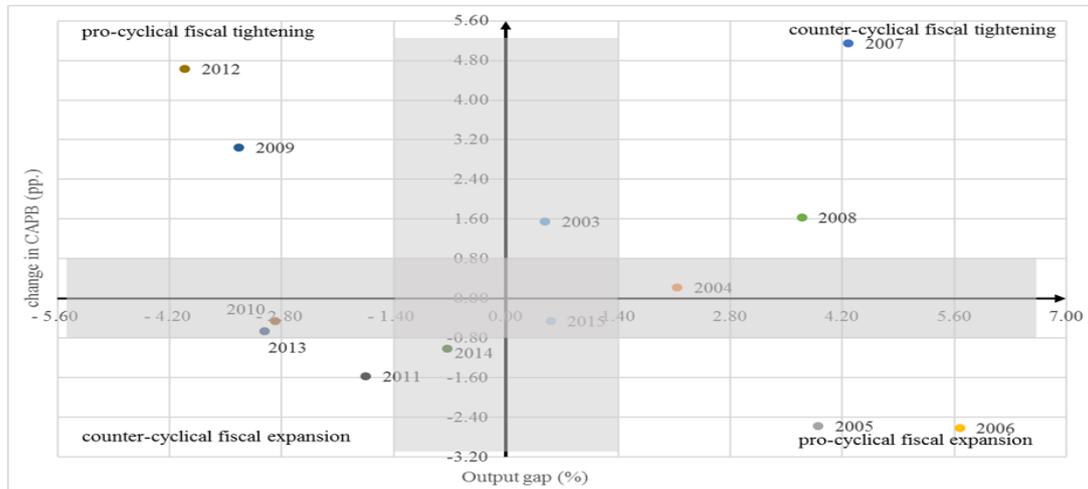
An imprecise estimation of CABP may result in one fiscal report being classified as a negative impulse (positive change in CABP) and in another it will be included as fiscal expansion (CABP negative change). This was the case for both Hungary and Germany. The above arguments make possible to conclude that estimates of important types of unobservable variables that are important for the determination of the fiscal policy type are subject to significant error. It can be attributed to the classification of the nature of the fiscal measures of the state, and thus their assessment. The significance of this problem is presented in graphs 5 and 6. Again, in the coordinate system, the points corresponding to the years are marked on them and the production gap as well as CABP changes are marked on the axes OX and OY, respectively. In addition, errors in measurements of estimated values were taken into account, represented by grey areas around the axis. Their size corresponds to the average size of the spread. In the case of German economy, the average spread in the production gap was 0.8 pp. For Hungary this average was 1.4 pp. In turn, the mean spread of CABP for Germany was 0.35 pp. and for Hungary 0.8 pp.

Figure 5. Fiscal policy map of Germany in 2003-2015, taking into account the spread in estimates of production gap and CABP



Note: Points (years) are based on OECD estimates from the Economic Outlook No.101 report.
 Source: Own study based on OECD data.

Figure 6. Hungary's fiscal policy map for 2003-2015 with spread in estimates of production gap and CABP



Note: Points (years) are based on OECD estimates from the Economic Outlook No.101 report.
Source: Own study based on OECD data.

Fiscal policy maps for Germany and Hungary illustrate the limitations of using the production gap and the CABP to analyse discretionary measures and their effects. The grey area on both graphs can be defined as an undefined fiscal policy. This is due to the fact that it is problematic to assign observations within it to one of the indicated types of fiscal policy. Moreover, it should be noted that this problem affects almost 60% of the observation (total for Hungary and Germany). As a result of the inclusion of undefined fiscal policy, in the case of Germany, the same number of cyclical policies in 2003-2015 was observed for pro-cyclical policy periods. In the case of Hungary, the extended analysis indicates a clearly pro-cyclical nature of fiscal policy while on the basis of 2017 report the advantage of anti-cyclical policies was identified. The implications for the nature of fiscal policy in the surveyed countries are different from those of the first analysis based on OECD report of 2017. In conclusion, the methodological weaknesses in the assessment of fiscal policy under the conventional method described in point 2 are confirmed in empirical data.

4. Choice of consolidation instruments in the surveyed countries

4.1. Germany – consolidation based on the expenditure side

German economy is now considered to be the core of the functioning Economic and Monetary Union. Moreover, its importance in recent years has definitely increased. Between 2007 and 2015, Germany's share in euro area GDP growth increased by 2 percentage points (from 27% in 2007 to 29% in 2015). Germany was the leading player among the rest of the euro area, although at the beginning of the 21st century it was defined as one of the weak points in the emerging monetary union (The Economist, 1999). Properly implemented processes of fiscal consolidation were a key factor for the perception of German economy in the Economic and Monetary Union. The beginning of the consolidation process of the years 2003-2015 dates back to the last years of the 20th century. It involves the signature of a coalition agreement between the Social Democratic Party of Germany (SPD) and the Green (Grüne) in 1998, which discussed the future fiscal policy (Bräuninger et al., 2005). It also indicated the necessity of orienting it on both the demand side and the supply side of the economy. The measures taken did not, however, improve the public finances and at the beginning of 2003 the Council of the European Union decided on the existence of an excessive deficit in the Federal Republic of Germany and set a deadline

for its correction until 2004. (Official Journal of the European Union, 2003)⁷. Following the decision of the Council of the European Union, then Chancellor Schröder on 14th March 2003 presented another document containing a systemic restructuring plan for the German economy. The program was Agenda 2010 based on the premise that achieving "proactive" fiscal policy was possible only after the necessary structural reforms were implemented. It should be noted that with its time horizon it referred to the Lisbon Strategy. Among the actions essential for the implementation of fiscal policy included in the Agenda 2010 the following should be indicated:

- Reform of the labour market (taking into account the recommendations of the Commission on modern labour market benefits, the so-called Hartz commission)
- Reform of the social security system;
- Reforms to support the Small and Medium Sized Enterprises sector (inter alia, raising the threshold of turnover below which enterprises are exempted from VAT);
- Reducing bureaucracy - for this purpose, the Bureaucracy Reduction Master Plan (February 2003) and the Bureaucracy Reduction Initiative (July 2003) were adopted;
- Reforms in the market of goods and services as well as capital market.

As part of the reform of insurance system, federal authorities decided to change the amount of paid social security contributions, the way they calculate benefits, and the privileges of certain occupational groups in the pension system. Such actions were intended to significantly reduce the welfare state. One of the decisions was to gradually raise the retirement age from 65 to 67.

The year of 2003 was particularly difficult for the federal government. During this period, the general government deficit amounted to 4.2% of GDP, significantly exceeding the reference value. It also had a relatively high ratio of public expenditure to GDP, at 47.8% (see Chart 7). In 2004 there was a significant reduction in the share of public expenditure in GDP. The magnitude of this phenomenon was so great that Germany fell below the average for the EMU Member States. This undoubtedly was affected by implementation of the savings packages connected with excessive deficit procedure. Reducing the general government spending to GDP ratio also continued in the coming years. The 2000-2005 period was characterized by an average annual increase in nominal expenditures of about 1.1 pp. while the average annual nominal GDP growth was higher and amounted to 1.5 pp. Moreover, in 2006 the ratio of general government expenditure to GDP was significantly lower than the EU average (by 0.5 pp.). In 2007 the gap deepened further. Compared to the average for the EU Member States at 44.6% then, the ratio of general government spending in Germany was 1.8 pp. lower (Figure 7).

Among the categories of expenditure that the public authorities decided to reduce in Germany to equalize the balance of the public finance sector are social expenditures, subsidies, salaries for public sector employees and the reduction of employment in this sector. Within the framework of wide-ranging savings packages it was decided to reduce short-term unemployment benefits and shorten the period of unemployment benefit for older workers as well as reduce child allowance. Major changes in the pension system were also introduced, such as the adjustment of pensions (2004 and 2005) and the so-called stabilizing factor (see Börsch-Supan, Wilke, 2005) in the pension calculation formula (2005). The savings from the introduction of changes in the pension system in 2004 alone were estimated at EUR 2.3 billion.

The reduction of subsidies paid by the state also played a major role in curbing the level of public spendings. Between 1998 and 2005 their size was reduced to half of the level of EUR 6.1 billion (Federal

⁷ It should be noted that EDP procedure started in 2003 is linked to conflict between the European Commission, the Council of the European Union and the Federal Government. Due to the limited scope of this paper this problem is not addressed in this paper.

Ministry of Finance, 2007, p.). The owner-occupied homes premium was abolished in 2006 as a result of tax-restricting subsidies. Relevant reforms were also made in the field of employment policy in the public sector. Firstly, the federal government's employment restriction policy was continued at the turn of the century. Secondly, in 2005 the federal government and local authorities agreed with trade unions to freeze wage growth for the 2005-2007 period. Limits on bonuses paid to civil servants were also introduced.

In the process of fiscal consolidation, the quantitative restrictions imposed on the expenditure side of public finances were also important. They were part of the National Stability Pact of 21st March 2002. Within it, the authorities in the Länders and the local authorities pledged to limit the increase of expenditure by a maximum of 1 pp. on average in the years 2003-2004. Moreover, on the basis of an agreement with the Financial Planning Board, the federal government also committed itself to reduce the scale of public expenditure. However, the restrictions imposed on the central government were more stringent because in the same years they were to reduce their expenditures on average by 0.5 pp. Out of these three levels of public authority only the highest level failed to fulfil fully the commitments made. Instead of nominal reduction in expenditure, they were increased. However, it should be emphasized that 2004 was one of few years in which a nominal decline in spending occurred as compared to previous year.⁸

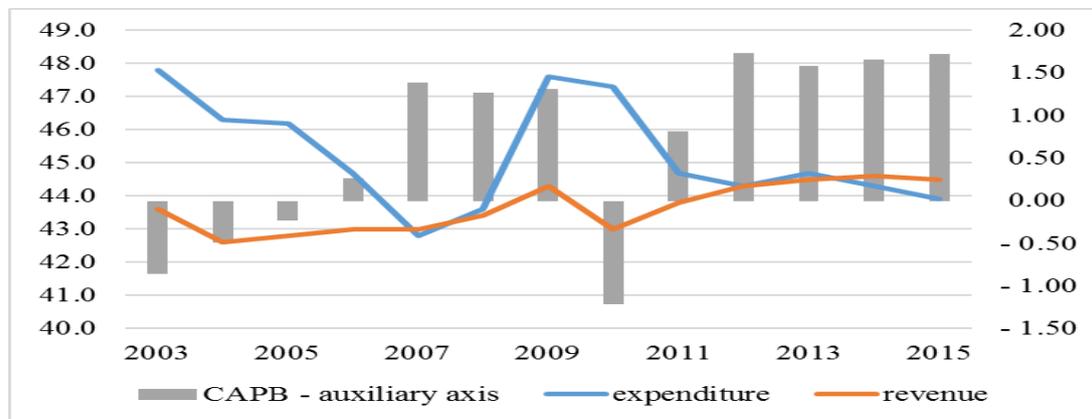
Finally, the Council of the European Union decided on 5th June 2007 to abolish the excessive deficit procedure from Germany (Official Journal of the European Union, 2007). It was in line with recommendation issued nearly three weeks earlier by the European Commission, which argued for a low deficit in Germany in 2006 (-1.7% of GDP). It should be mentioned that apart from the changes in the expenditure side of the consolidation, some minor changes in size and income structure were also undertaken (Figure 7).

The general government balance in Germany closed in surplus in 2007 (0.2% of GDP). Sustainable public finances were forecasted for the following years. On the other hand, the 2011 projections indicated a surplus of the general government at 0.5% of GDP. At the end of 2008 it was obvious that the economic recession would also affect the German economy. The achieved balance of public finances before the crisis allowed the federal authorities to fully utilize trend automatic stabilizers. In addition, discretionary measures included in the "Securing employment by enhancing growth" program (Konjunkturpaket I)⁹ could also be implemented through the Fiscal Buffer. They were supposed to provide a strong impetus for public and private investment, stimulate consumption and guarantee progress in the labour market. Its central point was to strengthen and complement the lending program of the KfW banking group (Federal Ministry of Finance, 2008, p. 7). As announced in December 2008, the government provided additional funding of EUR 15 billion (Federal Ministry of Finance, 2008, p. 9).

⁸ The average expenditure growth in 2003-2004 was about 0.5 pp in the Länders and about 0.7 pp.

⁹ The paper focuses on the expenditure component of Konjunkturpaket I due to its importance in fiscal consolidation following the financial crisis.

Figure 7. CAPB development due to changes in public income and expenditure



Notes: CAPB as % of potential GDP - right axis; Public revenue and expenditure as % of GDP - left axis.
Source: Own study based on Eurostat and OECD data - for CAPB.

Another important point of the package was the increase in road infrastructure expenditure. The number of planned initiatives under the Innovation and Investment Program in Transport amounted to EUR 1 billion in 2009 and 2010. Konjunkturpaket I also included measures to strengthen the labour market, including:

- employing more than 1 000 specialists in Federal Labour Offices,
- intensification of activation programs,
- extending the period of payment by the Federal Employment Service due to shortened working time (Kurzzeitgeld) from 12 to 18 months.

As part of anti-crisis program, the government's "Old-age as an economic factor" initiative was expanded to increase the energy efficiency of buildings. This additional support was estimated at EUR 3 billion between 2009 and 2011. The programme of replacement of old cars for new, cleaner models had also pro-ecological target.

In the opinion of the German federal authorities, the described stimulus package was insufficient. Hence, in January 2009, another anti-crisis package was adopted, Pact for Employment and Stability in Germany: Safeguarding Jobs, Strengthening the Forces of Growth and Modernizing the Country, the so-called Konjunkturpaket II. The actions proposed in the January plan were an extension of October 2008 initiative and introduced new solutions. On the expenditure side, they included (Bundesministerium der Finanzen, 2009, pp. 2-3; European Commission, 2010a, p. 16):

- subsidizing social contributions paid by employers to promote part-time work instead of redundancies;
- one-off allowance for each child at the amount of EUR 100 (Kinderbonus);
- increasing support for SMEs in R&D projects;
- introduction of bonuses for replacing old cars with new ones to boost demand;
- temporary simplification of tendering procedures related to public investment;
- public investment package of approximately EUR 14 billion, of which EUR 4 billion was a government package. The remaining EUR 10 billion is available to the Länders and local governments to support their investment projects related to educational or other infrastructure, such as hospitals, information technology, urban planning. The local authorities' contribution to these projects is approximately EUR 3.3 billion.

The performance of automatic market stabilizers and strong discretion stimuli resulted in significant deterioration in the balance of public finance sector in Germany. Thus, in November 2009 the European Commission pointed to the problem of excessive deficit (Commission of the European Communities, 2009), and a month later the Council of the European Union stated its existence in Germany (Official Journal of the European Union, 2010). The EU Council also recommended that the stimulus measures taken at the beginning of the crisis would be continued in 2010 while the fiscal consolidation process should begin one year later. In 2009-2010 there was a significant deterioration of the public finance sector's balance to -3.2% of GDP and -4.2% of GDP respectively. In addition, there was a significant increase in public expenditure-to-GDP ratio, from 43.6% in 2008 to 47.6% in 2009. This change illustrates the scale of fiscal expansion tools used on the expenditure side.

Following the recommendations of the Council of the European Union, the federal government announced in mid-2010 that it would begin the process of consolidating public finances by 2011. In the official nomenclature, it adopted the name "Zukunftpaket" ("Package for the future"). Among the activities indicated in it by the German authorities are the following:

- introduction of new nuclear energy tax;
- reduction of employment in public administration and the army;
- limiting social spending for long-term unemployed;
- introducing an international air traffic tax;
- changes in energy tax exemptions;
- introduction of bank tax.

"Zukunftpaket" was approved by the European Commission (European Commission, 2010b, p. 15). It was also important for the federal government to suppress the stimulus programs from 2009-2010. In particular, the level of public investment was affected by the expiry of the Investment Program for the future (Zukunftinvestitionsgesetze). The proposed actions and their implementation clearly indicated that Germany's fiscal policy from the expansion phase was transformed into a policy of saving. This is most clearly demonstrated by the May 2011 Stability Program: "The primary task of economic and fiscal policy is to extinguish expansive fiscal programs and maintain a consolidation course that is sustainable and good for the economy" (Federal Ministry of Finance, 2011, p. 8). By analysing the actions announced in Zukunftpaket along with the suppression of discretionary anti-crisis packages, it should be noted that the federal authorities focused their consolidation efforts on the public finance spending side. The data in Figure 7 show that a strong improvement in the adjusted cyclical balance (CAB) in 2011 was the result of a significant reduction in public expenditure. Compared to 2010, the ratio of public expenditure to GDP in 2011 decreased by 2.6 pp. (to 44.7% of GDP). In addition, a further reduction in this relationship occurred in 2012 (to 44.3% of GDP). However, it should be noted that due to the significant improvement in the public sector balance in 2011, the federal authorities in 2012 did not decide to introduce further significant expenditure restriction programs (European Commission, 2012, p. 8).

In the years 2010-2012, the consolidation of the income side resulted in lower growth of the ratio of public revenues to GDP against the planned one. This was due to delays in the introduction of financial transaction tax and lower than planned revenues from the tax on nuclear energy. Consequently, the change in public expenditure in relation to GDP was 2.5 times higher than the change in public revenues to GDP.

Table 7. Federal fiscal plans and their implementation in Germany in 2009-2015

Publication_date	2009	2010	2011	2012	2013	2014	2015
February 2010	-3.2	-5.5	-4.5	-3.5	-3.0		
April 2011		-3.3	-2.5	-1.5	-1.0	-0.5	-0.5
April 2012			-1.0	-0.9	-0.7	-0.2	0.0
April 2013				0.2	-0.5	0.0	0.0
April 2014					0.2	0.0	0.0
Actual data (ESA 10)	-3.2	-4.2	-1.0	-0.1	-0.1	0.3	0.9
Actual data (ESA 95)	-3.1	-4.2	-0.8	0.1	0.0		

Legend: over-optimistic fiscal programs are highlighted in green.

Source: Own study based on Eurostat data and German Stability Programmes for 2010-2015.

As a result of the consolidation measures undertaken, the nominal deficit of the public finance sector was limited to - 1% of GDP in 2011 and in 2012 it amounted to -0.1% of GDP. In 2014, the general government balance in Germany showed a surplus of 0.3% of GDP. In addition, by analysing the fiscal consolidation, the federal authorities are determined to implement the provisions of the Stability Programs adopted in this period (table 7).

On 12th March 2012 the Council of the European Union decided to remove the excessive deficit procedure from Germany. This was despite the fact that public debt exceeded the reference value of 60% of GDP, at the end of 2011 it amounted to 78.6%. The Council of the European Union recognized the significant progress of Germany in reducing public debt, which, in line with the Treaty provisions in force, may serve as a basis for removing the excessive deficit procedure (Official Journal of the European Union, 2012).

4.2. Hungary - Consolidation based on revenue side

In June 2013, the EU Council decided to overturn the decision on the existence of an excessive deficit, which was taken in 2004. The period needed to discipline public finances in Hungary was thus 9 years. In fact, however, in the first two years of EU membership, budget deficits grew significantly, the main reason being the political factors associated with the electoral cycle. Significant loosening of fiscal policy, manifested among others, in reduction in VAT rates or a 50% increase in public sector wages led to a deficit of 9.3% of GDP in 2006. The disciplined actions taken in 2007-2008 allowed the deficit to be reduced but this positive direction was halted in 2009 as a result of the crisis (the real GDP growth rate in Hungary was -6.6%).

The fiscal consolidation strategy, which turned out to be effective, leading to the correction of the excessive deficit, was launched in 2010. The consolidation path was based almost exclusively on the income side. This choice was surprising in that Hungary's convergence programs starting in 2004 set the path to correcting the excessive deficit mainly by limiting public spending. This did not change in the convergence programs already presented by the government of V. Orban in 2010, which provided basis for fiscal consolidation on the spending side. Moreover, spending cuts were accompanied by reductions in tax burdens.

The analysis of convergence programs, national documents and assessments by the European Commission and the EU Council shows that Hungary in the adjustment process used primarily the following expenditure instruments: 1) reserve "emergency" package of 0.5% of GDP for unforeseen

adjustment costs to processes on which the government had no influence (created in 2005 and in 2010 increased to 0.8% of total expenditure); 2) limiting subsidies to prices, to drugs, 3) decreasing subsidies for the public transport sector, 4) freezing public spending, 5) reducing public sector salaries, pensions and housing subsidies, 6) reducing transfers to local governments, 7) use of discrepancies that occur between cash and accrual expense recognition (e.g. 13th salary pay-out in the following year). The analysis clearly shows the lack of progress in fiscal consolidation in Hungary based on expenditure reduction plans, as evidenced by their growth from 48.6% of GDP in 2004 to 50% of GDP in 2015 (according to ESA 2010).

Progress in fiscal consolidation in Hungary is the result of changes introduced on the income side, resulting in increase in tax burden. These measures were only taken under the influence of the economic downturn during the global financial crisis. In the first years since the implementation of the excessive deficit procedure, Hungary undertook actions incompatible with the presented convergence plan, resulting in a reduction of income. An example was the acceleration of VAT rate on gasoline, set for 2006 and introduced in 2005, due to political reasons.

In the context of the economic crisis of the left-wing governments, there was a partial tightening of the tax policy reflected in returning to the 25% VAT rate from 1st July 2009 and increase of the reduced rate from 15 to 18%. Another supplement to the public finance discipline at that time was a solidarity tax of 4%. CIT payers were obliged to pay this tax from September 2006 until the end of 2009 and taxpayers paying PIT in 2007-2009. Despite instruments used, public debt in Hungary during financial crisis significantly increased, exceeding 80% of GDP in 2010.

The public finance discipline culminated in the effective correction of the excessive deficit started after the 2010 parliamentary elections in which the coalition of Fidesz and the Christian Democratic People's Party won overwhelmingly in the National Assembly and Viktor Orban took the office of Prime Minister. Economic policy, including taxation since then, can be regarded as unconventional, taking as a reference other EU countries. It is not accidental that it is called a Hungarian experiment.

The consolidation measures taken under this policy involving income instruments can be divided into three groups:

- 1) Changes in applicable taxes;
- 2) Introducing new fiscal burdens,
- 3) Use of one-off revenues.

Changes in the scope of tax systems already in operation involved, inter alia, an increase from 1st January 2012 of the basic VAT rate to 27%, the highest in the EU. The taxation of the second indirect tax has increased primarily in the case of alcoholic beverages. In the taxation of personal income, the basic change consisted in replacing the two-stage tax progression (18% and 32%) with a flat tax rate of 16% from 2011, down to 15% from 2016. It should be noted that the EU Council recommended Hungary in 2012 the return to progressive taxation (European Commission, 2012). The second change in PIT was to exclude from the tax base social contributions paid by the employer (27%) and to replace the old contribution with the new tax of 27% from 2012. The EU Council in 2012 issued a recommendation to Hungary to mitigate the effects of changes to the tax laws of 2011 and 2012 for low-income people in a sustainable and non-budgetary manner, for example by transferring part of the tax burden to energy taxes and property taxes. Hungary has, however, chosen a different solution and raised the minimum wage and mitigated the effects of the tax reform and introduced a wage subsidy program (Council, 2012).

Changes in corporate taxation began with the Hungarian Socialist Party led by Ferenc Gyurcsány. The linear rate of 16% applied in 2004 was replaced by two rates in 2008: the basic 20% and the preferential 10% applied to the tax base of less than 50 million HUF. The application of a preferential rate was subject to compliance with the legal requirements regarding the employment of employees and use of profit. Moreover, since 2010, the basic CIT rate was reduced to 19% and preferential to 10%. Since July 2010, the tax base was raised to HUF 500 million, while abolishing restrictions on entitlements. Under the conditions of significant drop in investment in the economy since 2017, the CIT rate was standardized at 9%. The attractive CIT rate is expected to increase Hungary's competitiveness, launch of tax optimization processes. It is estimated that as a result of reduction in CIT rates, the drop of budget revenue will be at the level of HUF 600 billion, but taking into account the positive economic effects, it will worsen budget in 2017 by HUF 150-170 billion. CIT reduction costs are to be covered from the budget reserve (Biuletyn Ekonomiczny, 2016, pp. 4-5).

In the strategy of disciplining public finances in Hungary, it was decided to introduce new taxes. In July 2010, the Hungarian parliament passed a bank tax. Banks were subject to tax of 0.15% of the total net asset value up to the value of HUF 50 billion and above that amount were subject to tax of 0.5%. Other financial institutions were also covered by the bank tax. Insurance companies were charged a tax of 6.2% of net insurance proceeds and the remaining financial institutions were taxed at 6.5% of the tax base. The bank tax was supposed to be valid until the end of 2013, but it still applies, except that from 2016 the upper rate of bank tax was reduced to 0.24%. The higher tax revenues were also guaranteed by maintaining the adjusted balance sheet total of 2009 as tax base.

In December 2010, crisis taxes were imposed on energy, telecommunications and retail chains. The crisis tax affected energy industry to the largest extent. Since September 2011, there has been a public health food tax imposed on foods and drinks with high sugar, salt, cocoa, carbohydrates, caffeine and taurine. Tax rates vary depending on the type of product and the content of the substance. The new source of public income as from 1st January 2013 was the tax (charge) on financial transactions. The fiscal consolidation instrument is also tax on telecommunication services levied in principle for each started minute of the call and each text message sent, including several tax exemptions.

Under the discipline of public finances, the subject of taxation were insurance policies: third party liability policy OC (car accident tax) and AC (motor tax), elements of terrestrial and underground networks and solar collectors. A separate tax for tobacco industry (the so-called health contribution of tobacco companies) was also introduced, which was to be used for treating persons smoking from 2015. In the face of progressive taxation, the European Commission in July 2015 recognized this tax as discriminatory and prohibited its use (Bulletin of the Economy, 2015).

Table 8. Main instruments for income consolidation applied in Hungary

Changes in existing taxes	Introducing new taxes	One-off transactions
Increase in VAT rates	Social tax	Transfer of assets from private pension funds (OFE) to the state system
Increase in excise rates	Bank tax (from financial institutions)	
Replacement of progressive tax PIT with flat tax	Crisis taxes (energy, telecommunications and retail chains)	
Exclusion of social insurance contributions paid by the employer from PIT base and replacing them by social tax	Tax (charge) on financial transactions	
	Product tax linked to public health	
	Tax on telecommunication services	
Lowering CIT rate	Car accident tax (on OC)	
	Insurance tax (on AC)	
	Tax on the elements of terrestrial and underground network	
	Cultural tax	
	Tax for the tobacco industry	
	Tax on solar collectors	

Source: Own study.

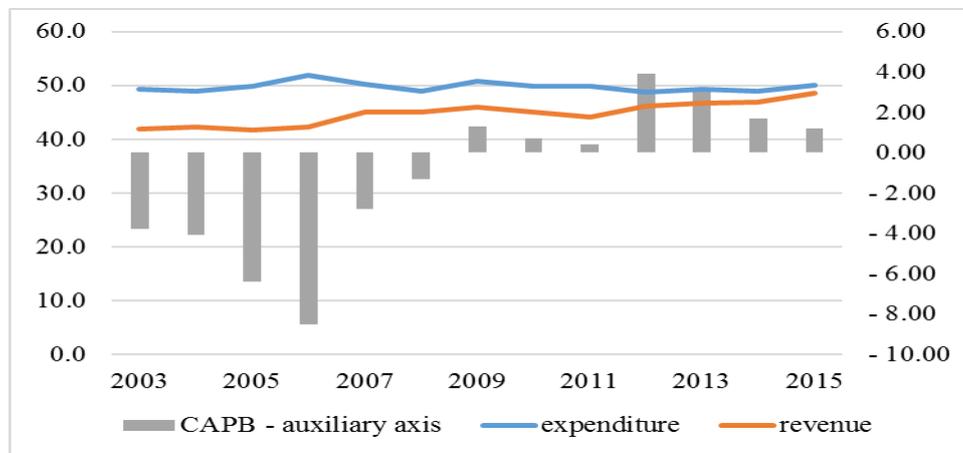
Tobacco tax is still collected in Hungary, except that it is only applied to cigarettes supporting addiction or hindering the treatment. It should be added that in 2015 the European Commission issued a negative opinion on changes in advertising tax by applying progressive rates, which would result in favouring some companies and discriminating others¹⁰.

In the fiscal consolidation strategy, one-off inflows were also used. Transfers of assets from private pension funds (OFE) into the state system were of utmost importance. These measures, which constitute citizens' savings, were treated as income in 2011 and influenced the positive public finance sector (4.2% of GDP). This approach was questioned by the European Commission, which calculated the balance of the sector after eliminating one-offs from public revenue. In this way, the balance of the public finance sector in Hungary was negative in 2011 (-5.5% of GDP according to ESA 2010). The decision to transfer assets from the private to the public system has positively influenced public spending, reducing the cost of servicing debt.

The changes introduced in the public revenue system led to an increase in their share of GDP from 42% in 2003 to 48.5% in 2015. The increase was mainly due to an increase in taxes on production and imports from 15.5% of GDP to 18, 8% of GDP (European Commission, 2016, p. 103). Figure No. 8 illustrates importance of changes in income and expenditure for the improvement of Hungary's fiscal position.

¹⁰ More on tax system of Hungary (Moździerz, 2016a, pp. 229-277).

Figure 8. Development of CAPB as a result of changes in public income and expenditure



Notes: CAPB as % of potential GDP - right axis; Public revenue and expenditure as % of GDP - left axis.
 Source: Own study based on Eurostat and OECD data - for CAPB.

The success of fiscal consolidation is determined by different methods. The primary criterion for assessing consolidation according to the European Commission is CABP. One can say about success when, within three years of the end of consolidation, the cyclically-adjusted CAPB does not deteriorate in the country by more than 0.75% of GDP compared to the year of consolidation (European Commission, 2007, p. 202). If the moment of the end of fiscal consolidation could be the year of 2012 in which the general government deficit was reduced to less than 3% of GDP and on the basis of evaluation the excessive deficit procedure was lifted, it can be concluded that the consolidation was successful. Over the next three years, CAPB was positive. The surplus decreased, however, the cyclically adjusted primary deficit did not occur.

Evaluating the effectiveness of consolidation using the criterion proposed by Alesina and Ardagna (2009, pp. 9-10) based on changes in the debt size, the fiscal consolidation that was implemented cannot be considered successful. The cumulative value of the public debt to GDP ratio of three years after the end of fiscal adjustment (in 2012) improved by 3.5 pp. (78.2% of GDP in 2012 to 74.7% of GDP in 2015) against the expected 4.5pp consolidation requirements.

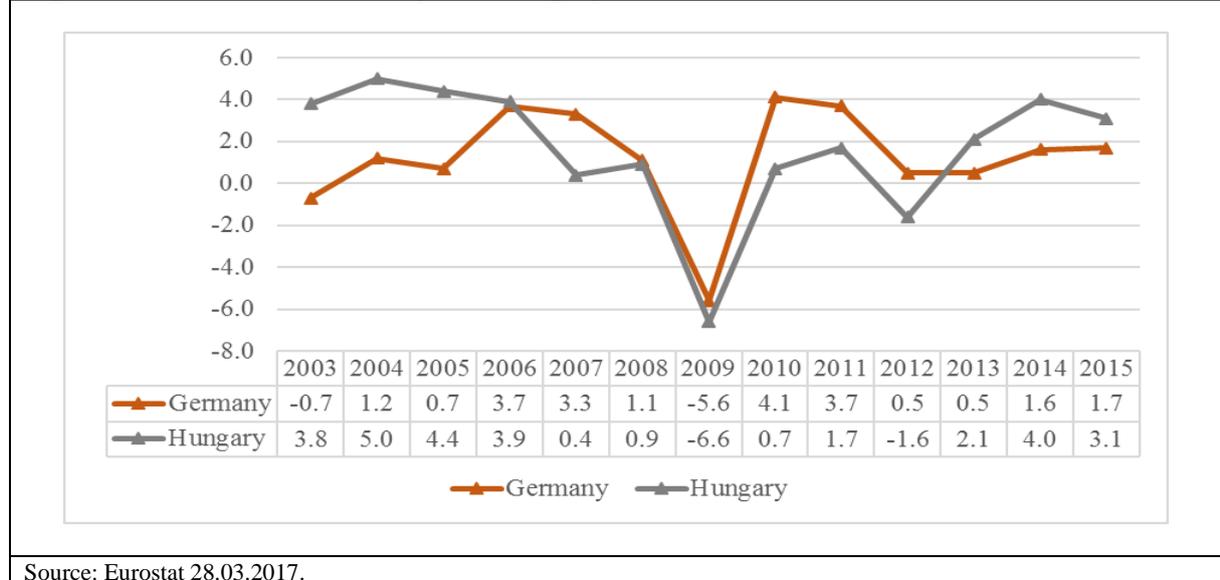
The fiscal consolidation strategy can be considered effective in achieving the goal of overcoming the excessive deficit. Given that fiscal consolidation in Hungary, contrary to the prevailing recommendations of the theoretical acquis and the experience of the Member States, was mainly based on revenue side, the effects of these actions on public debt may be different than in case of consolidation based on public expenditure. The ambiguity of the assessment of fiscal consolidation in Hungary shows that the controversy over the measurement of fiscal consolidation and the criteria for recognizing its effectiveness are not only theoretical dispute but also are difficult to be assessed in practice.

5. Effects of fiscal impulse transmission on the real sphere in Germany and Hungary

The impossibility of making an explicit assessment of fiscal consolidation on the basis of quantitative criteria provides arguments for the need to extend the analysis to the macroeconomic effects of disciplinary action. In the first two years of EU membership, the Hungarian economy achieved a rate of economic growth far above the level of the leading EU-Germany economy (Figure 9). In the years of the global crisis, Hungary experienced double negative GDP growth rates in 2009 (-6.6%) and in 2012 (-1.6%). After a slow economic recovery in 2013-2014, the year 2015 brought another slowdown. Since

the crisis, economic growth in Hungary was characterized by high volatility. The course of economic processes in this country can be a result of the impact of fiscal stimulus triggered by increased tax burdens. Contrary to the Hungarian economy, the negative effects of the global financial crisis reached Germany with bigger delays.

Figure 9. Real GDP of Germany and Hungary in 2003-2015 (in %)



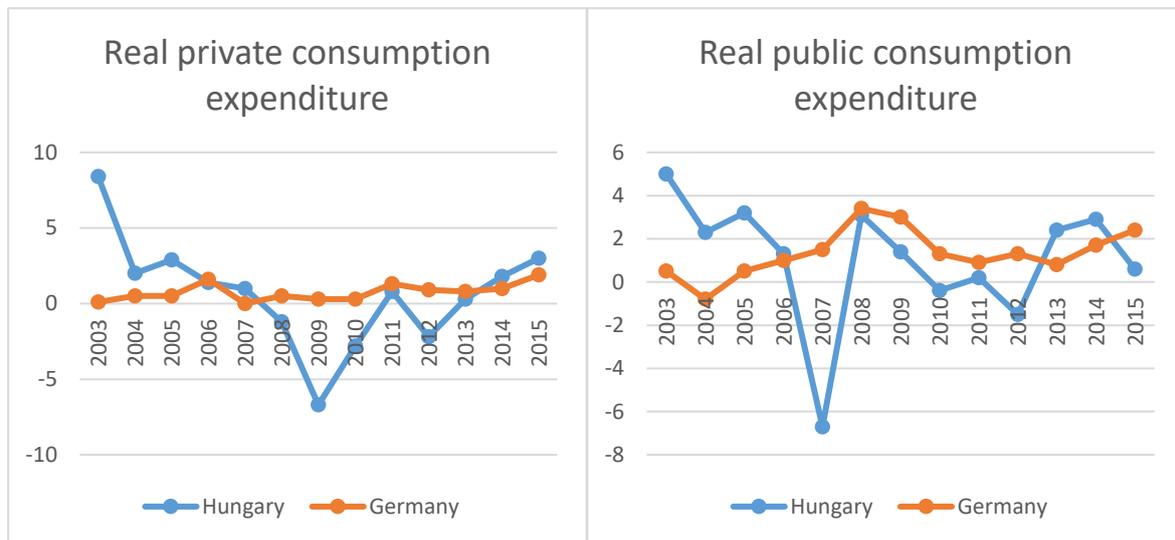
Source: Eurostat 28.03.2017.

Moreover, after a negative GDP growth rate in 2009 (-5.6%), it accelerated rapidly and in 2010 it grew at a rate of over 4%. In the following years, economic growth slowed down in Germany, however, rates were not negative. In the last year of observation, i.e. 2015, it was at the level of 1.7%. It may be assumed that such course of economic activity in Germany was influenced by the nature of fiscal consolidation, based on the expenditure side.

In Hungary, since the year of accession to the EU (2004), there has been a downward trend in consumer spending of households. Since the beginning of the consolidation efforts by the government of V. Orban in 2010, twice as much spending was declining year on year. In real terms (prices for 2010), the level of expenditure in 2008 was reached in 2014¹¹. Unlike Hungary, in Germany, expenditure throughout the period under review has increased. In Hungary it was also characteristic that despite a significant reduction in interest rates in 2009-2015, a decrease in the size of loans taken by households was observed. This phenomenon only partially explains the conversion of loans denominated in foreign currency into the national currency.

¹¹ More on effects of tax policy on real economy: (Moździerz, 2016b).

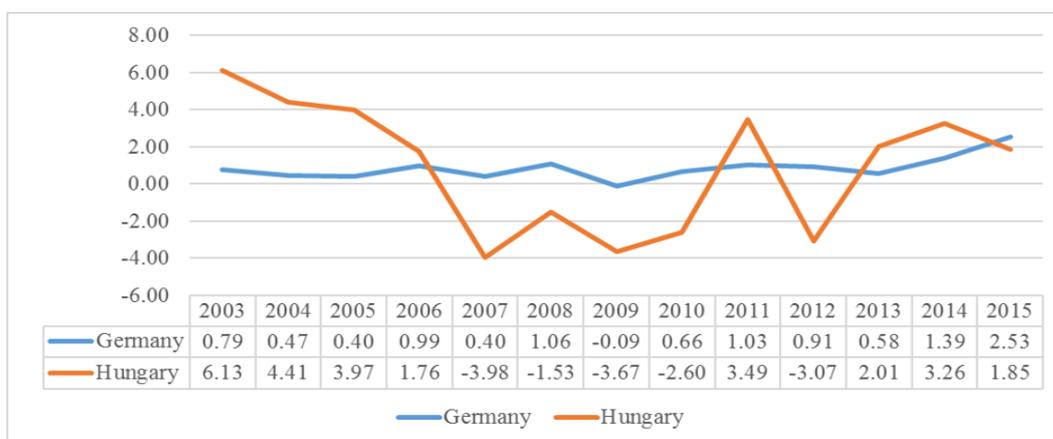
Figure 10. Real private and public consumption expenditure (percentage changes)



Source: OECD Economic Outlook 99 database.

In Hungary since the economic crisis that began in 2006, for three years a decline in public consumption was noted (2007, 2010 and 2012). The reasons that may be pointed out are: decrease in disposable income (Figure 10) and increase in indirect tax rates. Unlike private consumption growth in the years 2003-2015 in Hungary, a stable growth throughout the period was observed in Germany. It is important to emphasize that this is particularly important given the emergence of a global financial crisis during this period. The reasons for such strong stability of private consumption could be assigned to high resistance of German labour market to shocks caused by the economic slowdown. Good situation on the German labour market has also resulted in stable household disposable income (see Figure 11). This feature of German labour market was highlighted in 2010 Stability Program (Federal Ministry of Finance, 2010, p. 26). Thus, the financial crisis did not have much influence on the dynamics of wages.

Figure 11. Real household net adjusted disposable income, deflated by actual consumption, (annual growth rates in percentage)



Source: OECD Stat.

The powering engine was not investments in most of the years under examination. In the case of Hungary in the two following years after the accession to the EU, investments increased year on year but their dynamics weakened (Table 9). The increase in investments in 2007 was halted in the next year and in 2009-2012 the dynamics indicators were negative. A further increase in investments from 2013 and 2014, which began to recover, was halted in 2015, after which investment declined again year on year. The growth of investment in Hungary in the years 2013-2015 is largely based on the realization of projects implemented with EU co-financing. A confirmation of this observation can be found in Figure 12, which presents the structure of investments in Hungary, where the increase in general government investment can be seen from 2013. Limitation of investments by company starting from 2010 should be connected with introduction of special taxes imposed on selected industries. The accompanying decline in investments made by households may be a consequence of increase in the burden of public levies.

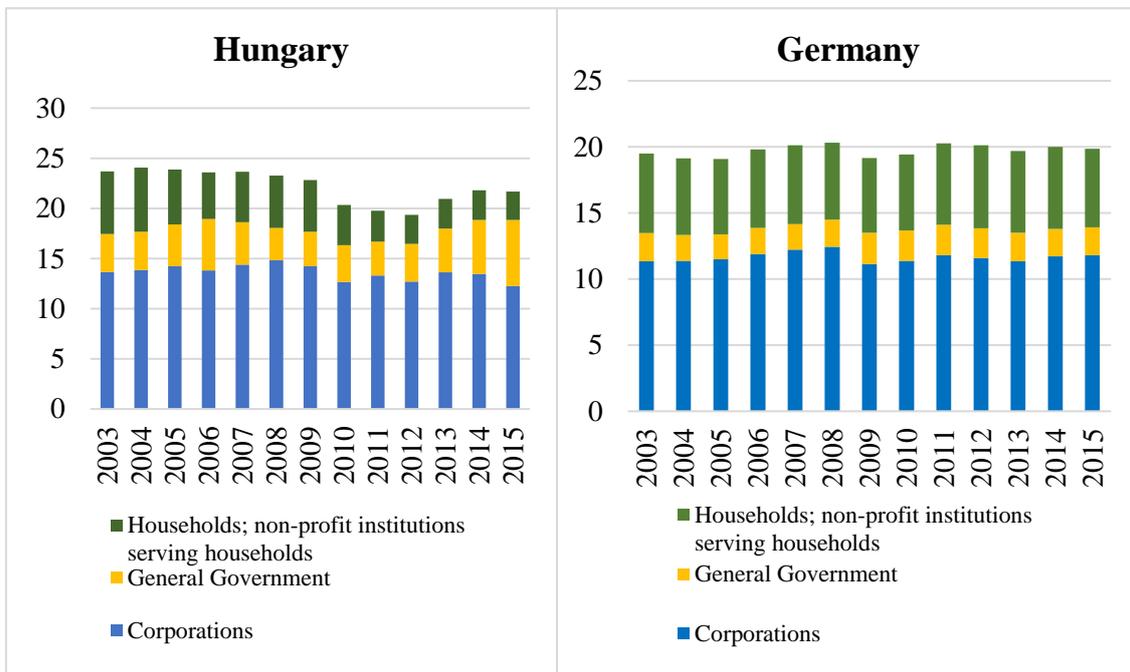
Table 9. Total investments (real total gross fixed capital formation, percentage changes)

Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Hungary	1.3	7.6	3.6	0.7	4.2	1.0	-8.3	-9.5	-1.3	-4.4	7.3	11.2	1.9
Germany	-1.4	-0.9	1.0	8.1	4.3	0.9	-10.0	5.1	7.4	0.2	-1.3	3.5	1.7

Source: OECD Economic Outlook 99 database.

In Germany in the early years of the period under review (2003 and 2004) there was a decline in real investment, which was halted only in 2005 (see Table 9). A significant increase in investment occurred in 2006. However, already in 2008, with the advent of financial crisis, the dynamics index approached 0 and a year later it was -10% y/y. The years 2010-2011 brought about an improvement in German economy but it should be noted that it was largely a result of the base effect. The real change in investment was also negative in 2013 (-1.3% y/y), mainly due to fall in corporate investment (Figure 12). In turn, the last two years analysed (2014 and 2015) were characterized by an increase in real investment in the economy, which was fuelled by expansive monetary policy of the European Central Bank, launched in early months of 2014. Moreover, by analysing the level of investment in German economy it should be noted that their average share in GDP for the period of 2003-2015 is definitely below the Hungarian economy average. This ratio is also below the average for the whole European Union. This problem is highlighted by, inter alia, by the International Monetary Fund (IMF, 2015, p.21).

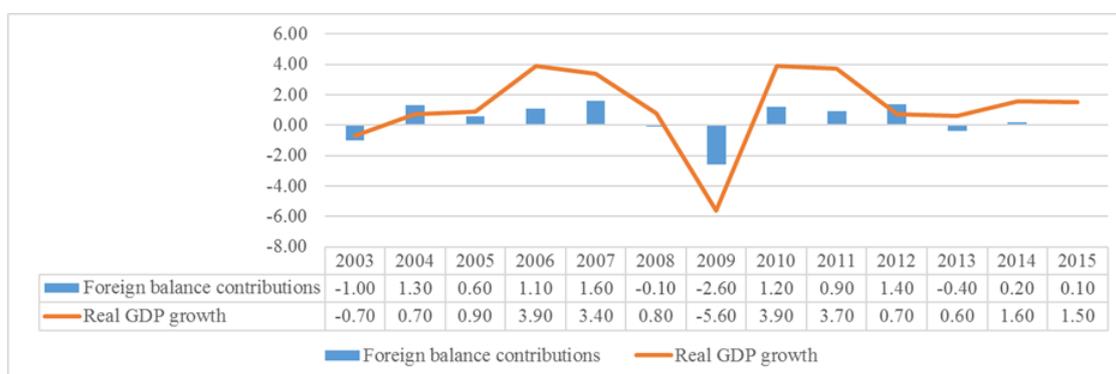
Figure 12. Structure of investments in Hungary and in Germany (GDP ratio)



Source: Eurostat 23.11.2017.

In the situation of limited domestic demand for consumption and investment, the source of economic growth in Hungary was for many years foreign demand. The change in GDP structure, where the share of net exports increased and the share of domestic demand decreased, resulted in decrease in public revenues. Figures 13 and 14 show the share of foreign balance in real GDP changes in the countries surveyed.

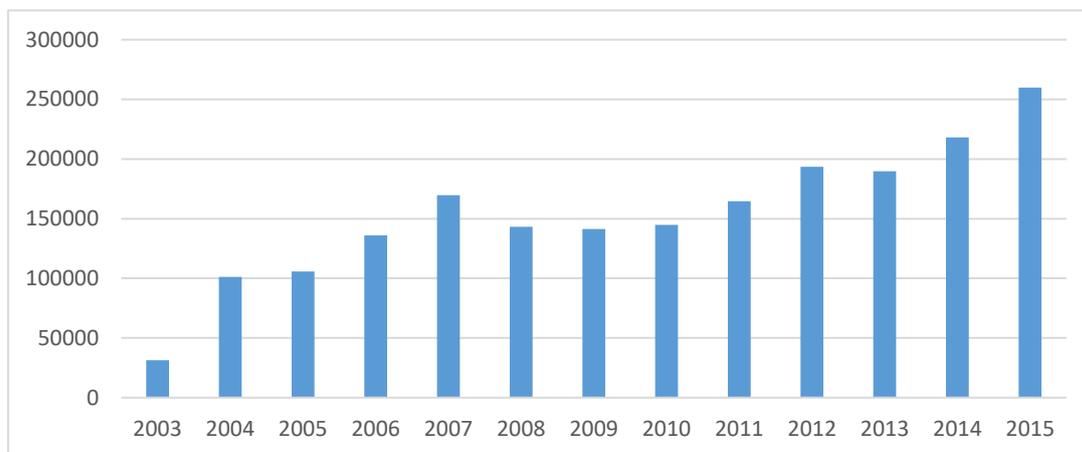
Figure 13. Foreign balance contributions to changes in real GDP in Germany (percentage points)



Source: OECD Economic Outlook 99 database, Annex table 9 (12.12.2016).

As in the case of Hungary the changes in the foreign balance, in most years, had a positive impact on Germany's GDP. This strong positive impact also emerged during recovery of German economy from the recession caused by the global financial crisis. It shall be noted that it is strongly export-oriented. Germany recorded the current account deficit for the last time in Q3 2001. Moreover, Germany's current account surplus has grown significantly over recent years. Its record level was noted in 2015 (over EUR 250 billion, which represented approximately 9% of GDP)¹². Normally, in absolute terms, this surplus was higher in the post-crisis 2011-2014 years than that generated by the Chinese economy. The issue of the formation of foreign trade relations has yet another important aspect in the context of the policy of saving (fiscal consolidation). As noted by Nobel Prize in Economics laureate - P. Krugman (2010) – the boom of net export is an explanation of the phenomenon of the so-called expansive fiscal consolidation.

Figure 14. Balance of current account of Germany in 2003-2015 (EUR million)

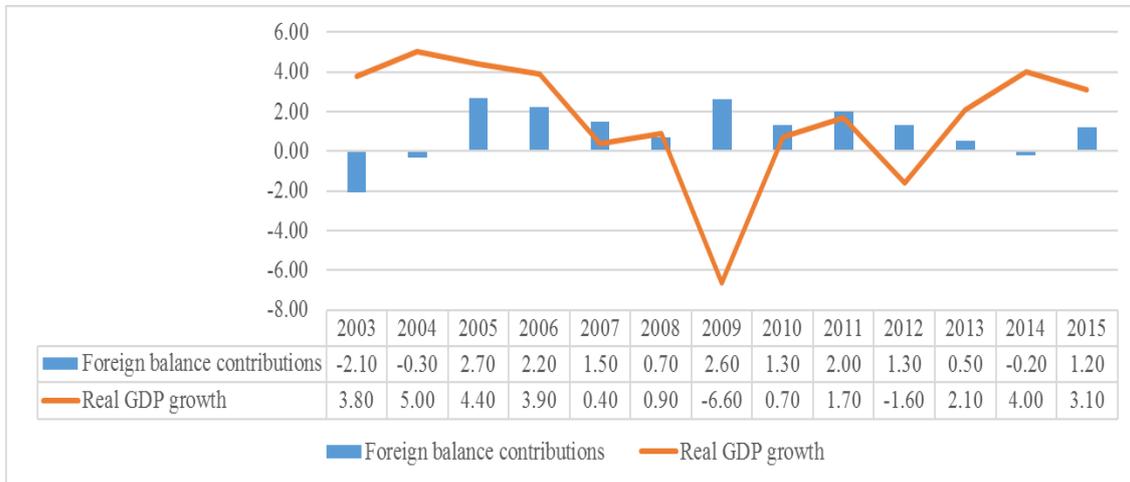


Source: Eurostat database (12.11.2017).

The balance of payments in Hungary (Figure 15) had a positive impact on GDP growth in recent years due to depreciation of national currency, which in some years was very strong. As a result of depreciation, the price competitiveness of exports was improved and labour costs decreased relative to the rest of the world. The negative effect was the decline in purchasing power of forint currency, the inflationary pressure resulting from the increase in the prices of imported goods and the increase in the cost of servicing foreign debt.

¹² Compared to Chinese economy in record 2007, this ratio was about 9.9% of GDP.

Figure 15. Graph of foreign balance contributions to changes in real GDP in Hungary (percentage points)



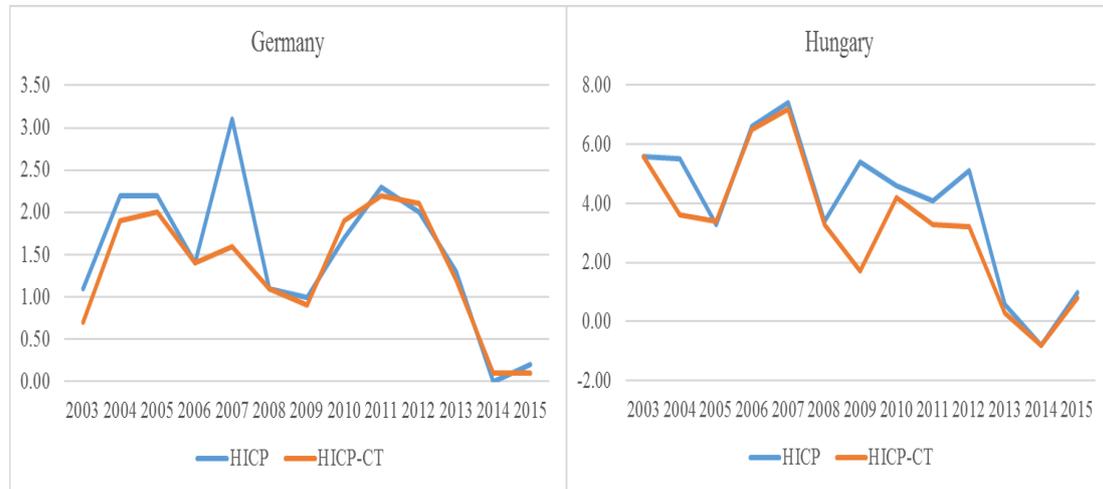
Source: OECD Economic Outlook 99 database, Annex table 9 (12.12.2016).

Inflationary pressures in Hungary were not only the result of depreciation of forint currency but also the result of the rise in indirect taxes and regulated prices. Tax changes introduced in this country have often resulted in price increases since usually the burden was shifted to customers.

We measure the impact of changes in indirect tax rates on inflation by means of a harmonized index of consumer prices at fixed rates (HICP-CT). This measure assesses changes in consumer prices without taking into account the impact of changes in tax rates on products during the same period (European Parliament and Council, 2016). HICP - CT is not an exact measure but it determines the upper limit of this effect. The theoretical nature of this measure also implies that the automatic impact of changes in indirect tax rates on price changes is assumed. Figure 16 shows the differences between the HICP and the HICP - CT in Hungary between 2006 and 2015. Specifically, in 2009, the difference between the indicators was close to 4 pp. It is also characteristic that since 2011, HICPs have remained below the HICP on yearly basis. Hypothetically, if there were no increases in taxes in 2011, the HICP would have been 0.8 pp lower and by 1.9 pp in 2012.

In Germany, there was much greater convergence of the harmonized index of consumer prices (HICP) and the harmonized index of consumer prices at constant tax rates. This is because there are no changes in indirect taxes in Germany except for 2007, where the basic VAT rate was increased by 3 pp. (from 16% to 19%) (European Commission, 2008, p. 149). As a result, the difference between HICP and HICP-CT was 1.5 pp this year.

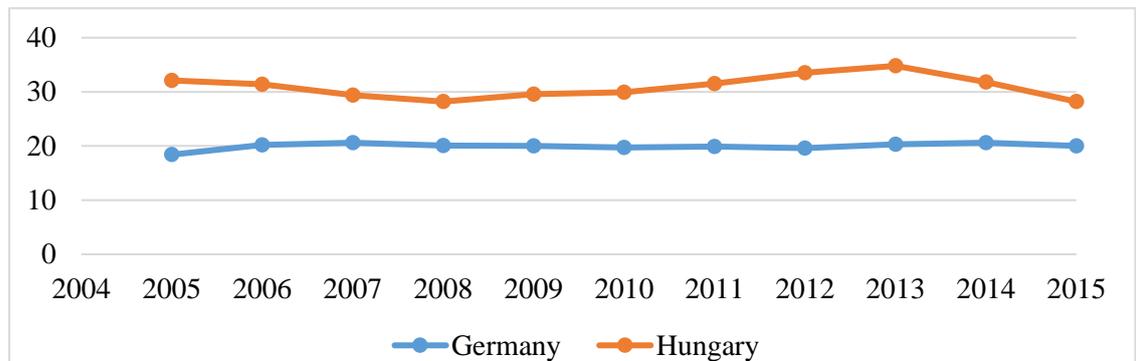
Figure 16. Impact of changes in indirect tax rates on HICPs (2015 = 100; annual rate of change)



Source: Eurostat 21.10.2017.

The choice of the fiscal consolidation path did not have an impact on income situation of the public. The data in Figure 17 show that the poverty risk and social exclusion index for Hungary is very unfavourable compared to Germany. It is characterized by an increase from 28.2% in 2008 to 34.8% in 2013. Since 2014, the situation has improved. In Germany, the indicator of the risk of poverty and social exclusion in the whole analysed period remained at a relatively low and stable level.

Figure 17. Poverty risk and social exclusion indicator in Germany and Hungary



Source: Eurostat 20.02.2017.

Another measure of income situation of the population is S80/S20 index, which examines the income ratio of the richest 20% of the population to the average income of the poorest 20% of the population. In 2010 it was 3.4% in Hungary and increased to 4.3 from 2013 to 2015. It means that tax-based fiscal consolidation has led to an increase in income inequality in the country¹³. A different situation took place in Germany during the period of fiscal consolidation. In 2010 in which the excessive deficit procedure was initiated, the quintile differential was 4.7. However, in the year 2012, in which the procedure was removed the index decreased to 4.4.¹⁴ In the following years, the increase in income diversification was observed in Germany (in 2015 S80/S20 index was 5.0).

Conclusions

The analyses show that the assessment of fiscal consolidation based solely on fiscal parameters, in particular the changes in the cyclically-adjusted primary balance, are not sufficient to justify its success. The paper presents the methodological shortcomings of CAPB as a measure, which is theoretical. The assessment of fiscal consolidation should also take into account changes in other fiscal parameters, including, in particular, public debt. In recognition of the success of fiscal consolidation, greater attention should be paid to the analysis of its impact on the socio-economic sphere.

The analysis of the economic and social effects of the fiscal consolidation strategy implemented in Hungary since 2010 led to the conclusion that it was effective but had negative consequences in the real world. The negative impact on GDP, through fall in domestic demand, private consumption, decline in investment of enterprises are to be mentioned. The other consequence was the influx of inflationary pressures through indirect tax increases. Reconstruction of the tax system led to an increase in income inequalities.

The fiscal consolidation strategy adopted by the German government was largely based on the general government spending side. It turned out to be an effective tool in reducing imbalances. It allowed for a surplus of the public finance sector at 0.5% of GDP and a reduction in public debt to 70.9% of GDP in 2015. Moreover, the choice of consolidation strategy in the period preceding the crisis allowed the federal authorities to use unprecedented anti-crisis instruments and facilitated rapid rebalancing of public finances after the crisis. Contrary to the income-based consolidation, in Germany, there was no

¹³ More on this in Moździerz, 2015, pp. 12-18.

¹⁴ S80/S20 data are from Eurostat database.

decline in private consumption or business investment. Nevertheless, the low share of total investment in the GDP structure in Germany may, in future, be a limitation for potential growth.

A look at the studied economies through the prism of macroeconomic imbalances that occurred over years allows us to capture important phenomena. The imbalance in Germany is public debt and current account surplus above warning threshold. In the case of Hungary in 2010, two imbalances were identified, i.e. low investment position of the country and high public debt. In subsequent years, with the progressive fiscal consolidation, new disruptions occurred, i.e. a decrease in the share of global exports, rising unemployment and rising real estate prices.¹⁵

The results of socio-economic fiscal consolidation studies show that fiscal adjustment based on the spending side in Germany was a strategy that yielded less negative consequences than income-based adjustments in Hungary. Due to the short period since the completion of the consolidation activities in the analysed countries, it is impossible to analyse the correlation between the used instruments of the income and expenditure side with recessions. Based on empirical research by other researchers suggesting that fiscal adjustments based primarily on the expenditure side are considered a strategy appropriate to ensure the sustainability of consolidation and that they exhibit weaker correlation to recessions than income-based adjustments, it may be expected that less sustainable and correlated with the recession is the consolidation in Hungary.

Bearing in mind the results of the analyses of both countries, it should be emphasized that the basis for developing a fiscal strategy in a given country should be the identification of the channels of impact of potential instruments on the economic and social spheres. Due to the differentiation between individual countries in terms of economic, social and political conditions, it is not possible to develop a general pattern of consolidation. However, when developing the concept of country-specific consolidation, the experience should be taken into account of the countries in which the consolidation ended with success without causing excessive disruption in the socio-economic sphere.

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¹⁵ <http://ec.europa.eu/eurostat/web/macroeconomic-imbances-procedure/indicators>.

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STANISLAW OWSIAK¹ AND JOSEPH YAW ABODAKPI²

PUBLIC FINANCE DISCIPLINE: A COMPARATIVE ANALYSIS OF POLAND, UNITED KINGDOM AND SWEDEN³

Abstract

The aim of this paper is to explain how different approaches adopted by individual European Union member states caused different outcomes and changes in the structure of public finances. In the aftermath of the economic crisis, public finances across member states have experienced massive distortions. The authors in this research work, comparatively describes and explains various consolidation measures and other relevant decisions that have been implemented in some selected EU member States. Three different economies have been surveyed in this Study. Firstly, Poland stands out as a country that achieved positive rates of economic growth of about 2.6% (GDP) during the financial downturn. Sweden was not placed under the Excessive Deficit Procedure but maintained a sound public finance balance during the sovereign debt crisis and. The United Kingdom implemented tough austerity measures, while at the same time ensuring that its commercial banks and other financial institutions were protected against bankruptcy without recourse to public finances at the expense of the taxpayer. The main objective of the research is to identify and analyse episodes of successful and unsuccessful (cold showers versus gradual) fiscal (expenditure- versus revenue-based) consolidations using the dynamics in the cyclically adjusted primary balance on sovereign debt reduction ratios. The authors further set out to comparatively and quantitatively assess the relationship between balances in public finances and other key macroeconomic variables in order to explain under what conditions some member states experienced considerably deeper negative shocks in the aftermath of the global meltdown of 2008. The research also integrates alternative measures and approaches towards the identification of imbalances in the structure of public finances and how this can be mitigated over the phase of the business cycle.

Keywords: Public finance, fiscal consolidation, cyclically adjusted primary balance, government expenditures, public deficit and debt, output gap

JEL Codes: H60, H62, E62

1. Introduction

The financial recession of 2008 have exposed various weaknesses in the financial systems of most advanced and emerging economies. Until recently fiscal policy as a tool in the management of public finances have not been given significant attention. However, in light of the sovereign debt crisis this area of research has since gained more prominence in respect of the need for governments to ensure sound public finances through greater fiscal discipline, and embark on the reduction of debts accumulated during and after the financial crisis. This paper defines the process of public finance discipline implemented by governments, using different policy measures, to restore macroeconomic stability. In the sphere of public finances, the ability to effectively manage state budget imbalances and to sustain a sound financial system requires appropriate public policies, which effectively adjust to business cycles. In order to achieve these targets, governments need to monitor inflow of revenue trends and expenditure levels on items such as health, pension systems, welfare and other social transfer payments to determine where loopholes can be sealed to ensure efficiency. In addition to these classical

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functions in public finance, the overall management of state budgets depends largely on fiscal institutions charged with maintaining a healthy public financial system. The outcome of such is a public surplus or deficit (Harold Groves).

The authors in this article focused not only on tax cuts, but also on tax policies implemented by the selected countries in their various approaches towards fiscal consolidation. In the context of this study, public finance discipline could be treated as a synonym of fiscal policy. The main purpose of the research was to analyse varying approaches adopted towards efforts of fiscal consolidation in selected countries. This involved the identification of measures implemented by governments to curb the negative effects of the financial crisis, an evaluation of the policy effects of financial instruments used during and after financial crisis. This involves an analysis of the relationship between macro-economic variables and fiscal positions in terms of revenue and expenditure. It is also necessary to focus on the distinction between cyclical factors such as the CAPB and the relationship between real and potential output gaps.

2. A review of the literature

Work carried out by Pagano, Giavazzi and Perotti (1990) based their research solely on fiscal episodes in individual countries while others used based their research on panel datasets and cross-country analyses. In terms of empirical contributions, Larch and Turrini (2011), Afonso and Jalles (2011), Guichard et al (2007) and Alesina & Ardagna (1998) concentrate on debt reduction. Other contributions (see Giavazzi & Pagano, Alesina et al., Ardagna, Afonso and Jalles) pay more attention to the growth cycle, private consumption, and private investment, both during and after periods of consolidation. In addition, some studies focused on fiscal reforms at institutional levels (Guichard et al (2007)). One of the main challenges facing governments during periods of financial and economic crises concerns the impact of fiscal consolidation on economic growth (GDP). In light of this the relationship between fiscal measures implemented and their impact on the overall real economy are of significant importance for future policy research. Extensive research in this field was carried out by Cugnasca and Rother (2015) and the European Central Bank (ECB 2014), whose works focused on the impact of the fiscal multiplier (see also Auerbach and Gorodnichenko 2012).

Romer C. & Romer D. (2010) has further discussed the impact of tax policy on the economy and on public finances. This is an area of intense debate, which extends into the recommended measures for economic and fiscal policy. The Keynesian approach on the one hand ensures the effectiveness of fiscal policy in times of economic crisis via the socialisation of investment. Hence, increased public investment will to some extent compensate for falling private investment in a countercyclical way. This prevents uncertainty and aims to restore full employment (Keynes, 1936/2007). Austerity policies are strongly linked to the effects of non-Keynesian fiscal policy and is the preferred method by some governments. However, the policy results of this have been criticised by other authors like Krugman (2010); Blyth M. (2013), Perotti (2011) who argue that the results of this policy are not shared on a broader spectrum (Jordà Ò., Taylor A.M., 2013); IMF (2010). Due to the doubts regarding fiscal policy, theoretically and practically, lessons derived from previous financial and economic crises allow member states of the European Union to respond to the financial crisis independently while co-ordinating the effects of their efforts at a union level.

In a study conducted by the OECD (2011) identified that four different groups of countries existed on paths towards fiscal consolidation. The four categories of countries were as follows:

(I) Economies whose public finances and growth potential had stalled significantly and had to adhere to economic programs. This group needed to consolidate its finances under market pressure and examples of such countries included Portugal, Spain, Greece and Hungary;

(II) The second category of countries included Estonia, New Zealand, Germany, the UK, and Holland. These countries needed to implement pre-emptive measures during the crisis of 2008;

(III) The third category of countries are economies with comparatively high fiscal consolidation needs, but are to announce large or more detailed consolidations. These are France, Japan, Poland and the United States;

(IV) The fourth group requires little or no fiscal discipline: Chile, Finland, Korea, Norway, Sweden and Switzerland, OECD (2011).

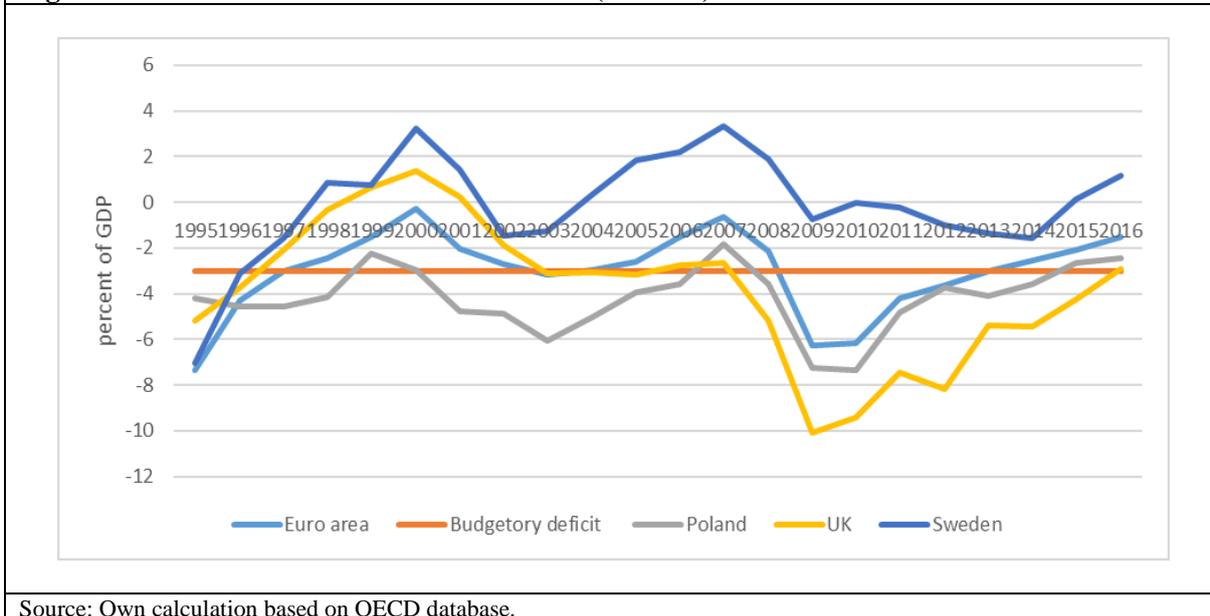
The above categorisation of countries varies in their plans aimed at achieving stronger public finance positions. The United Kingdom, Sweden and Poland can be each found in different categories.

3. Cross-country comparative analysis

Among the countries selected for this analysis, the United Kingdom is an example of one that experienced a series of negative shocks and massive economic imbalances due to an over-reliance on the financial sector. In the context of bailouts, which characterised the crisis of 2008/9, the UK government tried to prevent commercial banks and other financial institutions from bankruptcy without the use of public finances temporarily. This approach avoided increasing the tax burden on society, but it did result in an increase in public debt. The UK experiences are interesting within the context of fiscal policy, since major radical cutback (austerity) measures were imposed in various sectors of the economy. The levels of accumulated debt, toxic bailouts, higher welfare spending, increases in unemployment rates, and the UK's ability to reduce its budgetary deficit makes it also an interesting case study.

Poland was included in this research due to the robustness of its economy during the crisis and the fact that it did not experience the serious external shocks that many of the other EU member States did. The Polish economy achieved a GDP rate of growth of 2.6% in 2009; however, a slower pace of economic growth had a negative impact on public finances and for this reason, the excessive deficit procedure was imposed on Poland, along with twenty-four other EU states. The Excessive Deficit Procedure was ended in 2015 and signalled a positive sign that Poland had moved closer in achieving a successful period of fiscal consolidation. On the other hand, the United Kingdom recently also managed successfully to end the (EDP) which was imposed in June 2008, despite a higher volume of public gross debt to gross domestic product, the figure below indicates the three selected counties from 1995 to 2016.

Figure 1. Fiscal balance of selected countries (% GDP) from 1995 - 2016



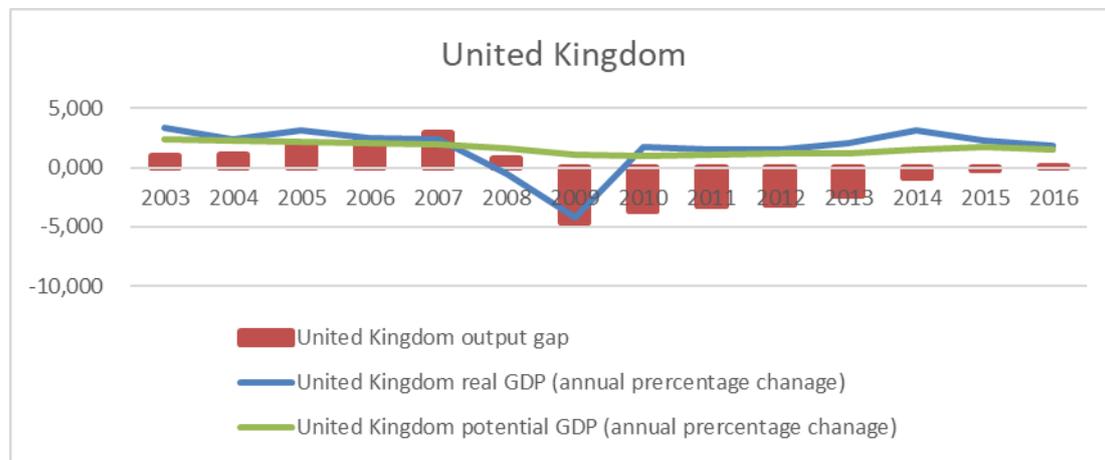
Source: Own calculation based on OECD database.

The Swedish economy experienced a decline in gross domestic product during the recession, though the country's public finances were sound following a successful fiscal consolidation, which was implemented in the mid-90s (Sørensen, 2010). As a result, there was no justifiable reason to impose the Excessive Deficit Procedure during the years of financial crisis. Sweden was one of just three EU states to avoid this together with Estonia and Luxembourg. The nature of fiscal policy conducted by the Swedish government was to reduce the level of fiscalism for more than a decade before the crisis to about 50% of gross domestic product. This was maintained due to the consensus between the government and the public, which contributed to the maintenance of a stable public finances over time. The fiscal balance of all selected countries shown above on the figure depicts a steady and sustainable fiscal balance. As mentioned earlier Sweden was not subjected to the EDP simply because of earlier reforms and mechanisms it instituted after its crisis in the early 90s. The figure above shows that from 1997 to 2016, the Swedish economy recorded surplus budgets. These strong performances can be traced to factors that included relative insignificant negative shocks of 2008, adherence and respect for fiscal rules and institutions; however, the Swedish economy also experienced slight decline in gross domestic product.

4. Economic performances (Output gap and GDP)

The difference between an economic output and its potential output is termed output gap, Blanchard (2017). An economy experiences a positive output gap, i.e. when actual output gross domestic product is far more in excess than potential GDP. Positive output gaps normally result in demand-pull and cost-push inflationary pressures in an economy. On the other hand, a negative output gap is when actual output is less than its potential output; in most economic recessions, a negative slump in gross domestic product causes a negative gap. To formulate a countercyclical stabilization policy, is very important to establish a relationship between inflation and output gap especially for economies pursuing inflation targeting and a relative stable economic growth agenda. In the conduct of financial policy, output gap is also relevant in decision making, as to what type of policy instrument will be appropriate to be implemented. The crisis of 2008 has not been different, having long and profound effects on economies affected. All economies go through cycles of growth and slow downs, hence the selected countries for our comparative studies are no different.

Figure 2. GDP and output of United Kingdom from 2003 - 2016

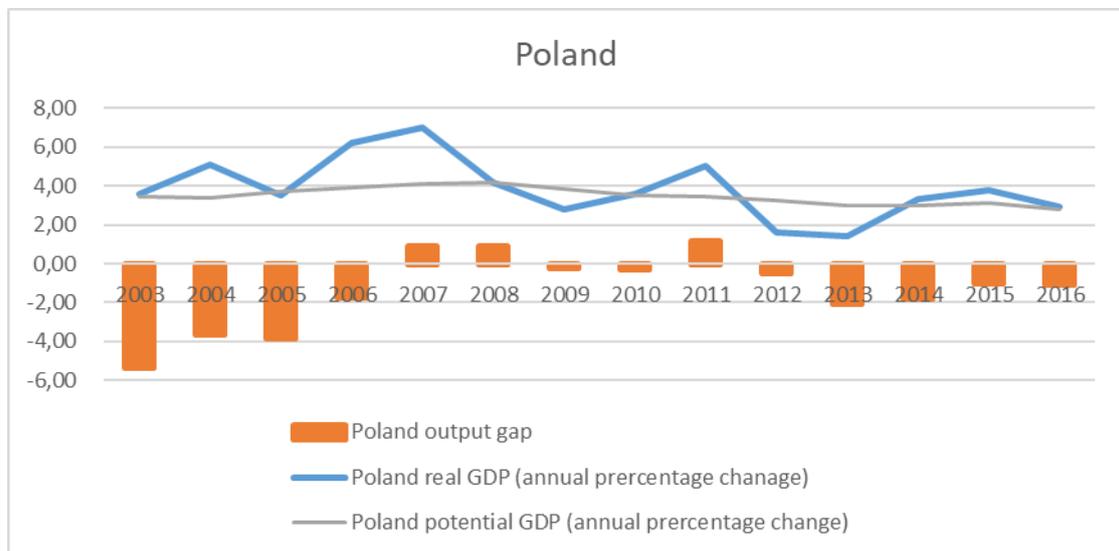


Source: Own calculation based on OECD database.

The figure 2 above shows the United Kingdom's level of performance reference to its output gap. The national output of the British economy from 2003 to 2008 showed positive levels of output especially in 2007, meaning the economy was operating at a near full employment and had less ideal factors of production, hence less capacity to accommodate more variables of production. However, in 2009, after huge losses in the real economy due to losses in the financial sector, potential output declined to about 40% to 2013 through transmission mechanisms effects. As potential output of the British economy began to improve, it is observed on the figure 2 that the Output gap had gradually diminished to about 1% in 2016.

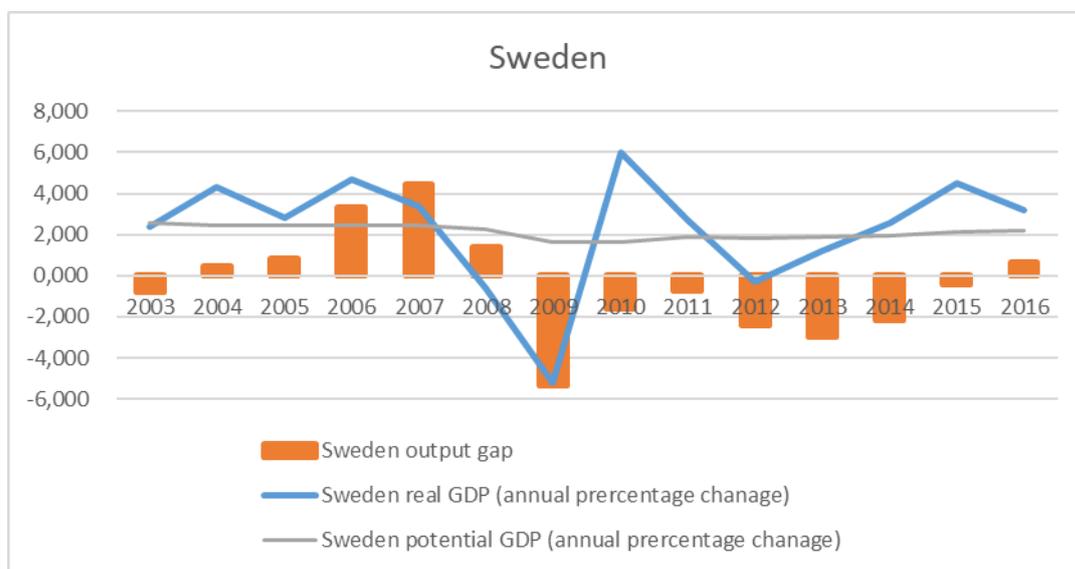
Observation of the output gap in the above graph 3 below indicates the Polish economy performed well in the pre-crisis period. An interesting picture can be noticed, as the economy expanded in terms of gross domestic product from 2.8 % in 2003 to 3.4 % in 2009, the levels of output gaps have been negative respectively. Meaning the Polish economy operated under full capacity and had room for more policy accommodation to boost further growth. A slowdown in growth from the periods of 2008 to 2010 showed the Polish economy recorded positive Output gaps in 2007, and 2008. Since then the level of Output has remained negative, an indication the economy can still increase its capacity in terms of productivity.

Figure 3. GDP and output gap of Poland from 2003 - 2016



Source: Own calculation based on OECD database.

Figure 4. GDP and output gap of Sweden form 2003 - 2016



Source: Own calculation based on dataset from OECD database.

From 2004 to 2007, levels of Output gaps have been positive for Sweden; the economy did operate a near full employment in the pre-crisis period but suffered negative Outputs gaps in 2009. The reason for this deterioration between 2008 and 2011 was due to discretionary fiscal policy, which did not conform to a counter-cyclical pattern (EEAG Report on the European Economy, 2012). From 2010 onwards, the Swedish economy performed well and this was partially due to positive net trade fuelled by a depreciated currency and a flexible exchange rate. This in turn boosted exports and growth momentum. Furthermore, the success of earlier fiscal consolidation programmes also contributed positively to increasing output in the Swedish economy under the period of review.

Despite the limitations of output gap measurements, such as correct estimation and problems of accuracy, it remains one of the best ways of measuring up an economies performance against itself and other economies. The compared economies in the study all recorded negative slumps in GDP in 2008, which explains the trend of negative output gaps in 2009, in exception to Poland where output gap did not really increase. From all the three figures, gross domestic product had improved after the crisis and during periods of fiscal consolidation.

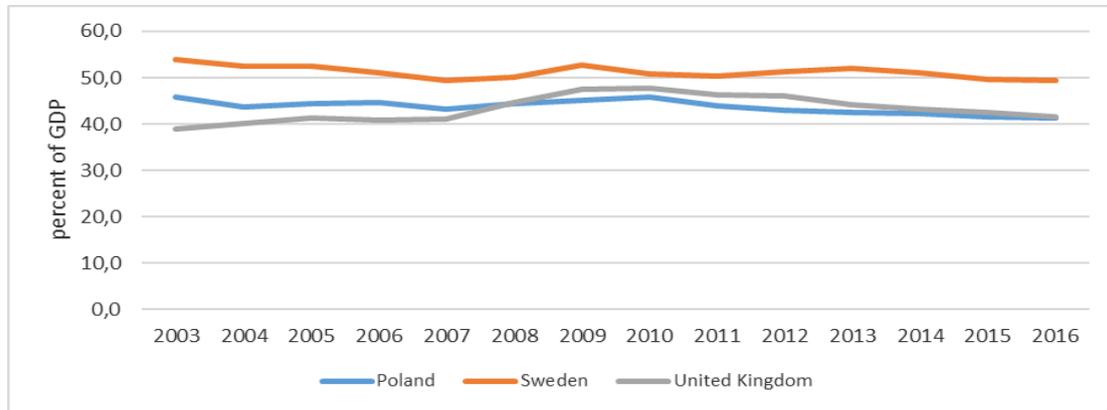
4.1. Selected macroeconomic variables

In addition to the varying positions in output and gross domestic product, additional macroeconomic variables such as general government expenditure, revenue receipts, government gross debts, and net lending positions of each country have been shown in Figures 5, 6 and 7. In comparing the levels of general government expenditure, before the crisis of 2008, the United Kingdom general government expenditure was considerably lower in 2007 to 2008 but with lower receipts of revenue and gross debt. The increase in public debt to 86.5 % of gross domestic product in comparison to Poland's 54.1% and Sweden's 42.2% of gross domestic product was caused largely by losses in the financial and banking sector at the beginning of the crisis in 2008. The rapid increase was partly due to government's decision to increase spending in areas like health care and education, social security spending (welfare and other transfers) amid lower tax receipts and higher unemployment benefits.

Other remote causes also included falling house prices, lower income tax and corporation tax. In 2009, the United Kingdom's net lending position worsened considerably, but has performed quite well due to a reduction in the fiscal stance in recent years. The financial rescue packages of private banks like Northern Rock, RBS and Lloyds, also worsened the indebtedness situation of the UK government. These cyclical factors have caused an underlying structural deficit for the British economy, a deficit caused by massive spending, rather than less tax revenues and ignoring cyclical factors.

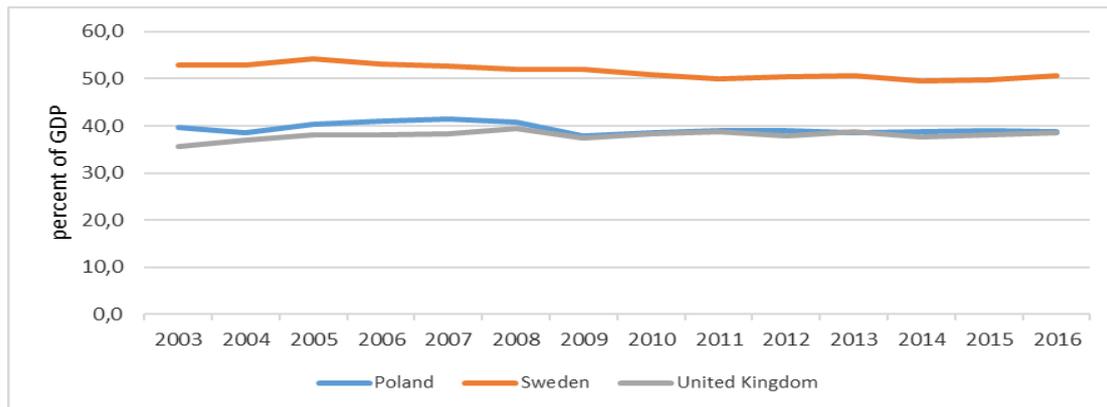
With the Swedish economy, a classic example of a welfare State, it experienced a higher level of fiscalism than Poland and the United Kingdom. When one examines the volumes of receipts, expenditure and net positive lending positions (fiscal balance) for the Swedish economy, it far exceeded both countries under study. The performance of the Swedish economy in the pre-crisis and after the crisis have been stable due to a host of factors, which have been discussed later in the work. The Polish economic performance as shown in figure 6 below demonstrates the following, government expenditure levels, revenue collection levels have been in considerable stable situations despite slight increases in public debt. In addition, comparing the net lending position of Poland and that of United Kingdom's position, Poland's ability in ending the Excessive Deficit Procedure earlier in 2015 demonstrates the improvements in Poland's public finances.

Figure 5. Trend of general government expenditure for UK, Poland and Sweden from 2003 - 2016



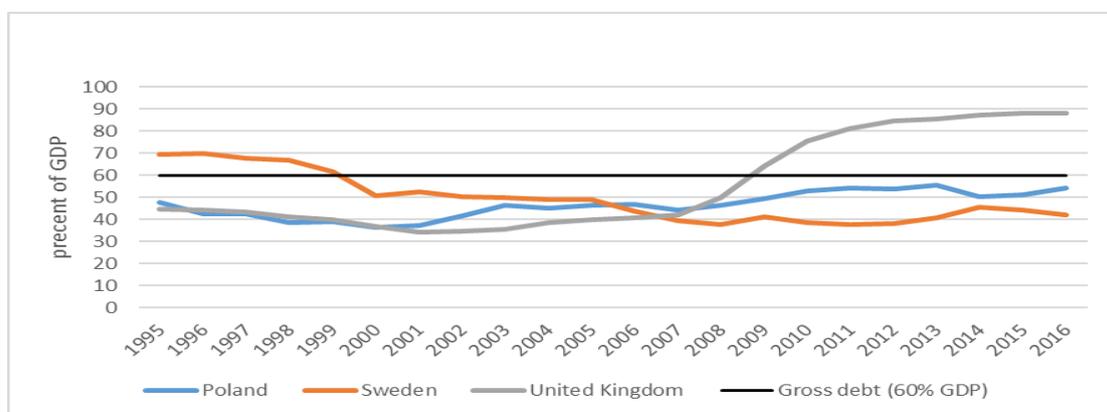
Source: Own calculation based on OECD database.

Figure 6. General government revenue for UK, Poland and Sweden from 2003 - 2016



Source: Own calculation based on OECD database

Figure 7. General government consolidated gross debt [%] from 2003 - 2016



Source: Own calculation based on OECD database.

Summarizing the economic performances of the selected countries, it is important to note that economic recovery programs implemented after the crisis to curtail rising debts, and falling revenues have been quite successful. General government public debt levels in Poland continuous to be on sustainable level and makes efforts of a stronger fiscal discipline much more desirable to achieve. The accumulated debt of the United Kingdom still requires better management of public finance structures in the UK, despite a lower deficit budgetary.

4.2. The Swedish model

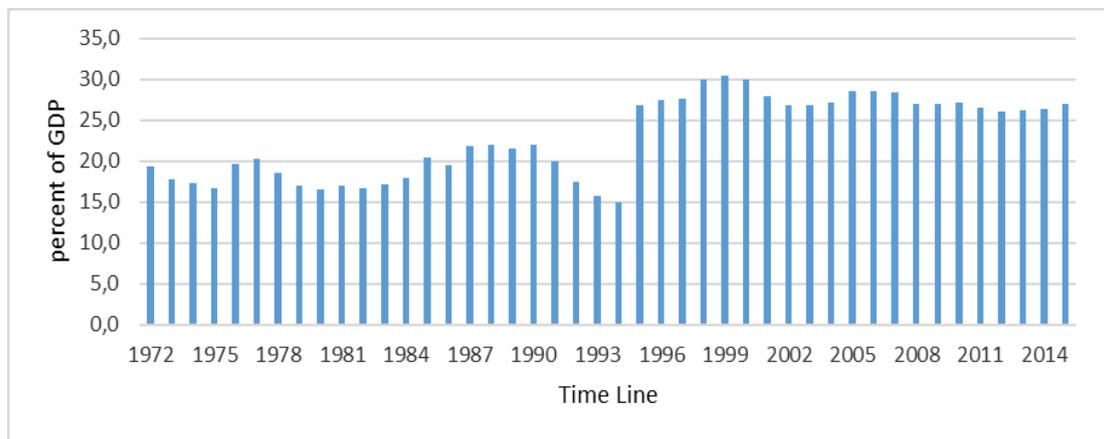
A particular attention has been paid to the Swedish economy with detailed information related to its past performance in the context of this comparative study. The Swedish model, as is called, is a result of the historic and comprehensive tax overhaul implemented in the 1990s that helped to restore economic progress. It is relevant to note that before Sweden managed to sustain its public finances, it experienced a deep economic recession in the 1990s, caused by an extensive market deregulation and credit expansion, which fuelled hikes in demand and prices in the real estate sector. These high levels of financial leverage led to a burst in the housing market and caused one of the major economic crisis to hit the country. Salaries and wages together with prices accelerated faster than a corresponding increase in productivity and together with a fixed exchange rate, induced a massive decline in exports.

In the following three years the Swedish economy declined by about 5% in gross domestic product. Unemployment also rose to about 11% in 1993 from a previous level of 3%. The deterioration of the public sector caused government deficit to increase to 11.2 % of GDP in 1993. The large accumulated debt of 73.7% in 1996 from previous position of 41.2 % in 1993 and a worsened net positive financial position of 8% to a 26.6% net debt showed how serious and deep the slump was. These developments in the public finance over time had to be corrected through a plan that will deliver a balanced budget and increased employment and productivity, the EEAG Report on the European Economy (2012).

Before turning to the comprehensive tax reform of 1991, which was classified as the reform of the century, this paper will also shed more light on the 1985 and 1995 tax reforms. Sweden experienced higher levels of fiscalism in the mid-80s. Significant features of the 1985 tax plan was the tax reduction rates and the level of neutrality introduced. Government reduced the marginal income tax on labour from 80% in 1985 to 51% in 1991. The reforms also included a reduction in total marginal effect from 88% to 74%. Tax subsidy to interest expenses also declined from 50% to 30%. The new 1991 tax code moved towards the income tax model, away from the hybrid form that preceded it, together with the introduction of propositional taxation to distinguish between taxation of capital income from labour income.

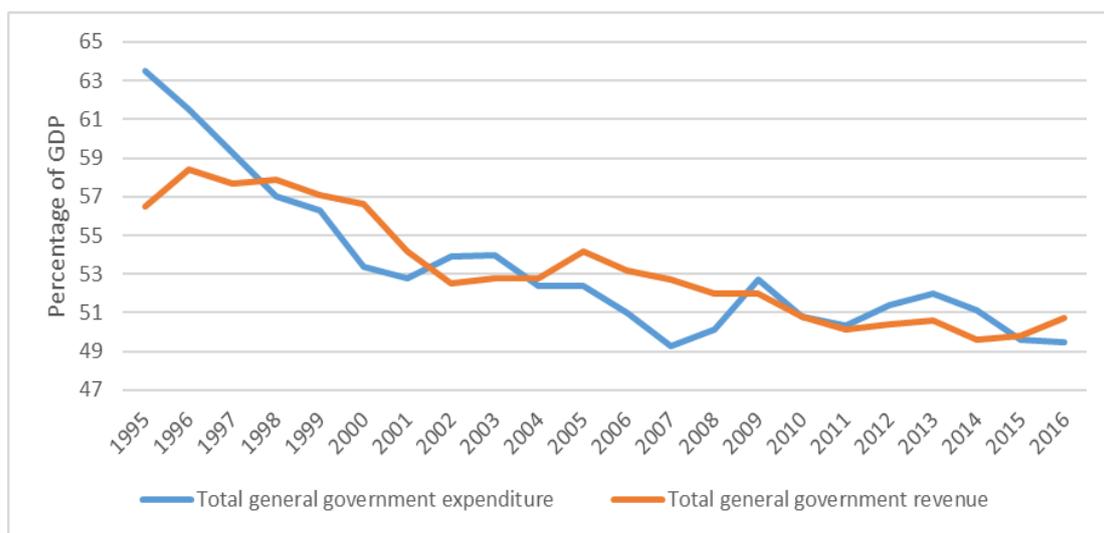
Furthermore, corporate and incomes taxes were also reduced to 30% without inflation adjustment and this was aimed at introducing neutrality, and also included a tax of 20% for individuals within a certain income brackets. The tax plan abolished the double taxation of corporate profits, but increased taxes on wealth and property that were also removed in 2007. One of the positive effects of the 1991 tax reform caused tax revenue from personal income to fall rapidly but the percentage of taxes on goods and services rose. This strategy helped the central government to abolish income tax for most income earners but broaden the tax base for value added tax, Norrman and McLure Jr (1997). During the same period, the labour market also went under series of reforms with the aim of increasing employment and productivity. Due to the fiscalism in Sweden, figure 8 below shows the gradual increases in taxes especially 1996 to 2007, before a gradual decline that later caused a decline in total revenue to GDP over time.

Figure 8. Tax revenue as a % of GDP



Source: Own calculation

Figure 9. General government expenditure and revenue from 1995 - 2016



Source: Own calculation

Before the Swedish economy experienced the economic crisis in the 90s, tax revenue levels were relatively lower compared to the recent crisis of 2008. Figure 8 demonstrates an upward increase in total level of tax revenue accumulated, especially between 1996 and 2014. As mentioned earlier, there exists a social contract between the State and the public about the level of fiscalism, where citizens pay higher rates in return for better and quality services and other better public amenities. Certain sectors of the Swedish economy went through various forms of market deregulation, like the banking, telecommunication, steel industry and others. This attracted foreign investment, capital and diversified the economy to withstand external shocks. All these reforms were implemented to achieve a balanced budget and higher rates of employment.

In analysing the nature and structure of public finance in Sweden, it is important to pay attention to the trend of government revenue, which is largely made up of taxes on labour, capital and consumption

items. Other areas in which government generates revenue include levied fees, fines and grants from the European Union and repayments of loans with interest. Government revenue as shown has declined gradually but remain relatively higher due to the gradual reduction in taxes in the mid-90s and in other follow up reforms. General government expenditure on education, academic research, health and defence forms part of the 27 expenditure areas of the government. Successful implementation of many reforms enabled the Swedish economy restore a balanced a public finance account, hence countries seeking to conduct consolidation of public finance in their respective economies, can learn and implement selected best practises contained in the Swedish Model in their respective economies.

5. Fiscal rules: A tool of discipline in public finance

One important and significant feature of these selected countries is that they all have not adopted the Euro as a currency, but still adhere to the Maastricht rules governing government debt levels and the deficit criteria. The importance of fiscal discipline is a pivotal element of the Maastricht Treaty that stipulates, among others, fiscal rules and guidelines that sovereign debt levels of member states should not exceed a threshold of 60% of GDP and budget deficit should be limited to 3% of GDP.

Among all the European Union member states, Poland has a constitutional provision (Art. 216.5) that prevents the government from exceeding a debt limit of 60 % GDP. Additionally, Article 220 of the Constitution grants the government the power to fix the deficit level and under the same provision, Parliament can only make changes to revenue and expenditure elements of the budget. It means that Parliament has no power to raise the level of deficit. Furthermore, besides this fiscal rule, the Public Finance Act, (Article. 86) sets additional threshold limitations and requirements, e.g. where public debt exceeds 55% of GDP, the forthcoming budget for the following fiscal year must not forecast a higher deficit in relation to revenue ratio than in the current year. This provision introduced in Poland in 2011 regulates local government budgetary activities and was because of rising public debt, and it imposed restriction on local units' governments to pass current balanced budget each year. Local authorities may borrow money for investment purposes only.

The United Kingdom also has its fiscal rules contained in the code for fiscal stability, which is divided into two set of rules. Firstly, the golden rule, which stipulates that over the phase of the business cycle, borrowing by government will be for investment purposes only and not to fund immediate expenditure, which in turn means that government must run a surplus current budget. The second fiscal rule is the sustainable investment rule, which stipulates that the public sector debt (net) to GDP ratio will be set at a 'stable and prudent' level, defined by the Chancellor, and shall not exceed a threshold of 40% of GDP over the economic cycle. Additionally, a Fiscal Responsibility Act, enacted under the Gordon Brown-led government in 2010, was also added, but was repealed by the Coalition government and replaced by the Office of Budget Responsibility Act of 2011, requiring the sustainability of public finance. The Office of Budget Responsibility came into effect with the enactment of the Budget Responsibility and National Audit Act of 2011, which introduced some new dimensions in the public finance operations of the UK. Primarily an independent watchdog in accordance with the European directive 2011/85/EU. This new office performs roles such as forecasting, performing a variance gap analysis against fiscal targets, overseeing costing of tax and welfare spending activities by the Treasury and finally evaluating the sustainability of public finances within the British Economy. Another element of the Act of 2011 empowers Parliament to oversee and enact legislation, i.e. the medium term objectives of the Government. All the aforementioned rules, institutions and councils give expert advice to governments on public finance issues.

In the case of Sweden, after major series of economic reforms a fiscal framework was established that have evolved over the last two decades. In 1995, a top-down approach was adopted, which allows Parliament

to decide the total volume of expenditures and its distribution to the various regions. In 1997, the central government expenditure ceiling was also set. Finally, in 2007 the Swedish authorities established a Fiscal Policy Council and is a continuous supervision process, Lars Jonung (2014). Since the beginning of 2010, there is also a requirement for local government units to have a balanced budget. Additionally in the same year (2010), a surplus budget rule also entered into force, which required the government to achieve a surplus of 1% in the phase of the economic cycle. The surplus target committee within the Swedish Fiscal Policy Council expects the government to run a surplus budget over the business cycle.

On the other hand, the EU fiscal rules that stipulate that levels of government debt must not exceed 60% of GDP and a budgetary deficit must not exceed 3% of GDP raise serious concerns for the core and peripheral economies in the EU, since there are massive macroeconomic imbalances among EU member states. Additionally, the Stability and Growth Pact has not played its crucial role in the efforts of fiscal discipline. A credibility issue affects its functions, as the pact has never imposed any sanctions in its 15 years of existence, when two core member states, i.e. Germany and France were faced with sanctions, there were immediate calls for a reform, which brings into question the neutrality and independence of the pact. The question therefore is, have these fiscal rules and institutions helped or hindered certain economies in their efforts to conduct fiscal consolidation? The central objective of these rules is to move towards a countercyclical fiscal policy to help reduce distortion in the business cycle. With significant fiscal adjustment introduced by EU member States and debt, sustainability programmes introduced because of the dramatic upward surge in public debt ratios, the ability to sustain these debt levels has become a major concern for policy experts and governments likewise. In recent decades, the type and composition of fiscal consolidation measures pursued by many countries vary significantly, depending on what constitutes a successful fiscal plan to reduce fiscal imbalances. In growth periods, rules such as the Stability and Growth Pact failed to encourage prudent fiscal policy, in correcting this procyclicality, is very relevant to project realistic macroeconomic forecast and stay committed to fiscal discipline in economic booms, Buti (2003). It is also important not to forget the cost element of having fiscal rules as underlined by Klaus and Soto (2017).

6. Pace of fiscal consolidation and sustainability

Efforts at fiscal consolidation vary broadly among advanced and emerging economies. In this paper, the dynamics of change in the cyclically adjusted primary balance is used by the authors in the definition of fiscal consolidation or discipline. Fiscal discipline can be defined as a continuous dynamic change in the cyclically adjusted primary balance of 1.5% over a year or over a couple of years when the dynamics of CAPB does not deteriorate by more than 0.5% of GDP over the phase of the business cycle. That is to identify both episodes of successful and unsuccessful, that is (cold showers versus gradual) fiscal (expenditure- versus revenue-based) consolidations by analysing the dynamics in the cyclically adjusted primary balance on the sovereign debt ratio reduction. Consolidation has also been defined as specific policies implemented to ensure the reduction in government accumulated debts and deficit over time. The nature of these policies are structural and would lead to restoring the fiscal stance of an economy OECD (2011). The concept of sustainability with reference to government debt means governments must ensure they meet their debt obligations by making payments due and managing liabilities in a very prudent manner. Higher levels of public debt and lower revenue can return an economy back into an economic crisis, hence the need to maintain relatively low levels of debt.

In an attempt to restore economic growth and balance in public finance structures, fiscal authorities have to seriously consider the speed and momentum of consolidation efforts. Many empirical works have paid attention to both emerging and advanced economies during economic recessions and results have shown that economies that record long periods of negative output gaps and wish to pursue paths of fiscal consolidation or discipline have negative impact on economic growth, especially if unconventional monetary policy prevails.

Through austerity programmes, a decline in investment related expenditures affects output gaps negatively. According to De Long Summers (2012) such prevailing conditions impedes economic recovery and growth in the long term. Under the four categories of countries identified by the OECD as mentioned earlier, economies that are not under market pressure should conduct a consolidation plan in slower pace and manner. The negative outcomes of austerity not only include short term losses, but have long lasting negative effects in growth and the reduction in human capital which in turn hurts potential growth and results in a lower-skilled labour force, and this has been some the features of cuts persistent in the UK as argued by Stiglitz, (2017) in the work Austerity Has Strangled Britain.

According to other authors like Blanchard and Cottarelli, (2010) and Jaramillo and Cottarelli, (2013) fiscal consolidation for countries with less fiscal demands and constraints should proceed with a gradual process in a consistent and coherent plan. Various measures of consolidation identified in the selected various countries are presented in the table (1) below which contains measures by various British governments over a period including both the Tories, Labour and the Coalition governments of Clegg and David Cameroon.

Table 1. Sources of fiscal consolidation measures in UK (2010-2016)

EXPENDITURE MEASURES	REVENUE MEASURES
Hiring and pay freeze have been very prominent measures applied to combat the fiscal crisis, in the UK, a two-year pay freeze was envisaged in 2011.	United Kingdom: In December 2009, the United Kingdom introduced a temporary "bank payroll tax" which is levied on bonuses paid to bank employees. The tax applies at a rate of 50% to the bonuses over GBP 25 000 paid by banks to their employees between December 2009 and April 2010. It was intended to cover the period until the government established new regulations on remuneration practices.
To cut back the government expenditure in the long run, the (early) retirement age has been increased in several countries during the crisis including the UK.	A reduction in public sector expenditure of about 25% and also a reduction in public sector jobs. That meant downsizing about 490,000 public sector jobs to about 330,000 in 16 departments identified under the "public bodies reform" meant to cut cost. The plan proposed a consolidation of about 904 public institutions into 496.
	The most important revenue measure was the increase in the standard VAT rate from 17.5% to 20% introduced in 2011. In addition, among others, there will be increased income tax from North Sea activities and private persons, as well as increased bank levies and reduced pension tax credits.

Source: Own compilation based on fiscal consolidation plans submitted.

Examining the various composition of adjustments identified in the selected countries, all three economies, identified sources of fiscal adjustments in expenditure, revenue and operational measures. These reductions in expenditures and higher revenue measures are streamlined to reduce fiscal burdens on all general government expenditure. Starting with the United Kingdom for instance, we identified revenue sources like the temporary bankroll bonus tax imposed on bank executives with bonuses in excess of 25,000. Another major and important element was the consolidation and the downsizing in the public sector to reduce red tapes and increase efficiency with limited government resources. Value added tax also went up from 17.5% to 20% to generate more revenue. Hiring freezes and austerity measures were also imposed to reduce government expenditure.

The table below shows the measures adopted and implemented in the Polish economy under various government administrations.

EXPENDITURE MEASURES	REVENUE MEASURES
A planned reduction of expenditures by 2.8% of GDP in 2010-2013	Reducing the possibilities to deduct VAT, by identification and blocking these tax loop holes.
Reduction of the remuneration fund in budgetary units, by adopting a general rule for freezing them at nominal level from the preceding year.	Removing the excise duty relief on biofuels
A freeze in remuneration system in public administration in 2011.	Freezing tax thresholds in PIT
Extending the retirement time and age of uniformed services personnel,	Introduction of tax on natural resources (copper and silver since 2012)
Extending additional maternity leave and introduction of parental leave.	Increment of VAT for postal services to 23% (as of 2013)
Changes in fiscal rules for local authorities: their accounts should be balanced with debt limits including spending co-financed by structural funds.	Application of excise duty on tobacco leaves (of 2013) (increase excise duty on oil, fuel and cigarettes)
Reduction of allowances and entitlements related to earlier retirement	
Temporary ban (when Poland was subjected to the excessive deficit procedure, EDP) ban on the adoption of legislative acts by the Council of Ministers, which may lead to an increase in expenditures and a fall in revenues in units of the public finance sector.	

Source: Own compilation based on fiscal consolidation, convergence and stability growth programmes, Ministry of Finance, Warsaw, 2011, updated 2013.

The paper identifies in Poland similar trends of measures as well, except that fiscal discipline sources were extensively dependant on the revenue side. Value added taxes (VAT) was increased to 23% and the government implemented steps to seal loopholes and weaknesses in the tax plan to prevent excessive deductions (VAT) by both businesses and consumers with regards to tax returns and claims. Higher Excise and custom duties on oil and fuel, cigarettes among others increased generated income for the State. To finance government expenditure that constitutes about 72% of fixed expenses such as pension system, budgetary regulations and other welfare social transfers these measures are necessary. From the years 2010 and 2013, the government planned a decline in expenditure by 2.8% of GDP, and this was to be achieved through measures such as the reduction of allowances and entitlements to earlier retirement, freeze in remunerations and inclusion of uniformed services personnel in the general security system.

Table 3 details what the Swedish government has implemented. To restore growth, the Social Democratic Party implemented a plan to consolidate its public finances. These plans were unconditional to the outcome of the process as captured. The results of the tax overhaul in 1991 and the recent mechanisms put in place before the 2008 crisis resulted in higher output growth and a better fiscal framework, in addition with the political consensus to achieve fiscal discipline. Similar increases in value added taxes (VAT), reform of the welfare system, pension system and higher excise duties on fuel

and tobacco can also be identified in the Swedish system as well. The much-discussed success of the Swedish plan largely depended on the respect for its fiscal rules and budgetary policies.

Table 3. Sources of fiscal consolidation measures in Sweden (1992 – 1993)

EXPENDITURE MEASURES	REVENUE MEASURES
Eligibility for sickness insurance and early retirement was severely restricted	Tax Revolution in form of Reforms – marginal reduction of PIT in the 90s.
Restricted eligibility for unemployment insurance	Simplification of VAT rate to 25%
Unemployment benefit replacement rates and compensation replacement rates in labour market programmes were reduced	A gradual continuous reduction in CIT from 30% to 22%
Expenditure freeze in 1994. State transfers to sub-central levels of government frozen between 1994 to 2000	Higher excise duty on fuel and tobacco

Source: Own compilation based on fiscal consolidation plans submitted.

In summary, due to the different nature of the selected countries in terms of development and its ability to respond to different economic shocks, the government and other fiscal authorities should always take into consideration the components of its fiscal consolidation plans, i.e. revenue and expenditure. The selections of these variables have long-lasting effects on growth and investment when output gap is negative.

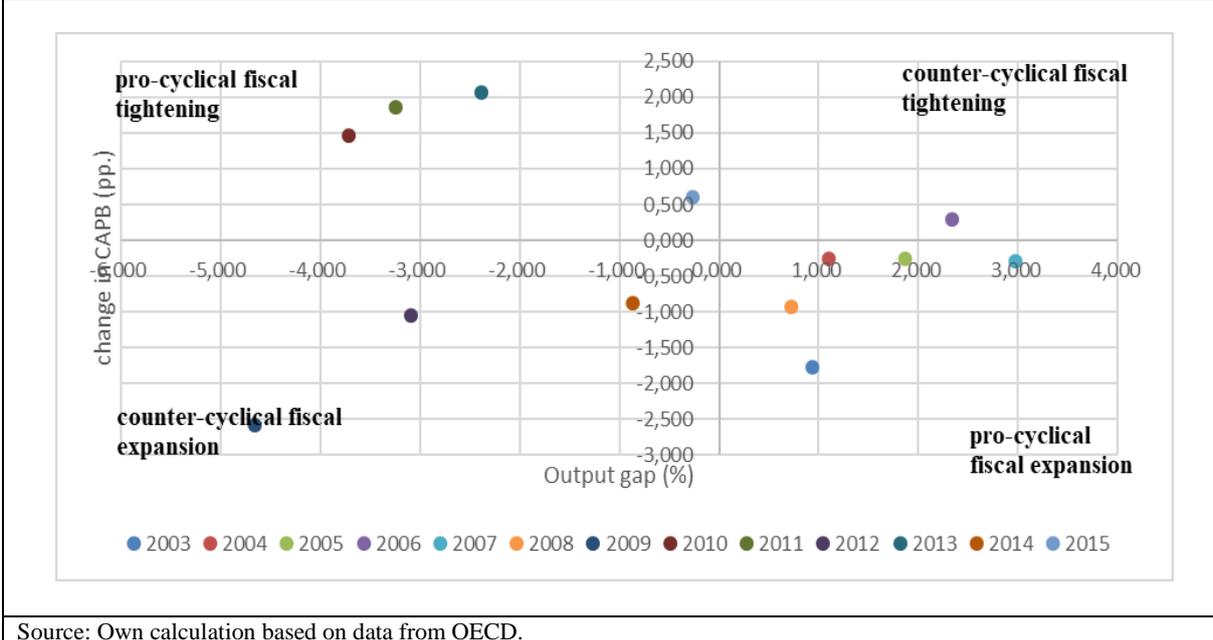
Empirical evidence by Alesina and Ardagna (2012) demonstrated that expenditure sources of consolidation have proved to be more successful in advanced countries and this is largely attributed to the level of growth in private investment. On the other hand, authors like Baldacci et al (2004) suggest that revenue-based fiscal consolidation measures result in lasting fiscal decline episodes and vigorous expenditure-based (cuts) consolidation efforts have the tendency to increase inequality. Furthermore, tax based consolidation can be also harmful for income inequality, Ball et al (2013).

7. Policy effects of fiscal consolidation

Fiscal Policy as a policy tool for government includes taxes, transfers. In times of economic downturns fiscal authorities take deliberate actions through legislation to change policies on expenditure and taxation policies. This intervention can lead to a fiscal expansionary meaning, lower taxes to increase disposal income and propensity to consume, and increase in government expenditure, on the other hand a fiscal contraction can also occur where there is a decrease in spending by government or higher taxes.

In assessing the impact of fiscal policy on the selected economies, we analysed the changes in the cyclically adjusted primary balance and the nature of output gap of all three economies. Some organisations like the organisation for economic co-operation and development (OECD) and the IMF release estimates and projections of cyclically adjusted primary balances. To calculate the cyclically adjusted budget, the output gap is estimated and elasticities of both revenue and expenditure obtained. The authors observed in all three selected countries, a medium or long periods of negative output gaps. This tendency impedes governments' efforts to implement successful consolidation plans, as these plans might have negative effects on growth in the medium- to long-term. In identifying the episodes of successful consolidation in the selected countries, the changing nature of CAPB, selected macroeconomic variables over time and output gaps positions have been analysed together with various measures contained in each countries consolidation programs.

Figure 10. Episodes of fiscal consolidation and policy effects on the British Economy

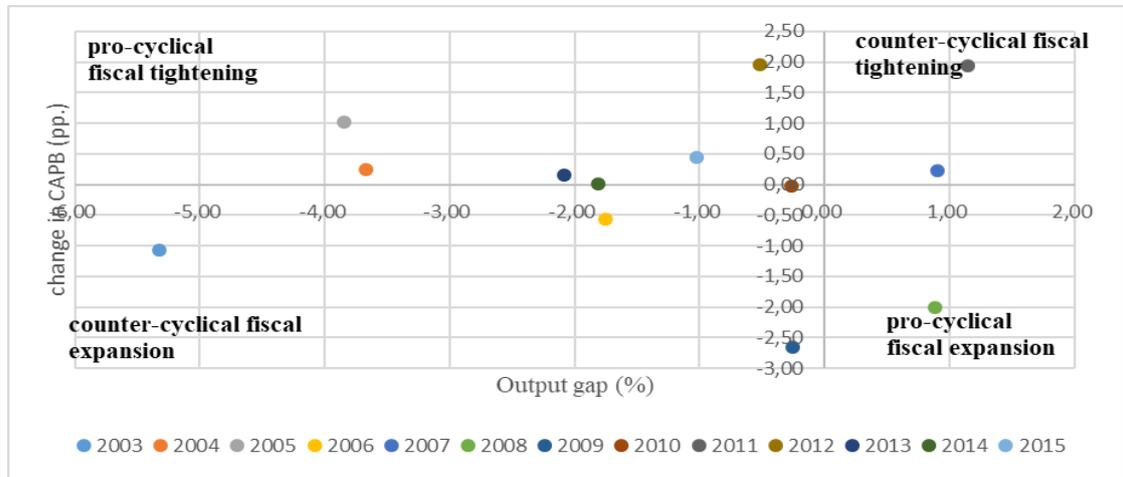


Source: Own calculation based on data from OECD.

In assessing the path to fiscal consolidation and the effects of policy implementation before and after the economic recession, the chart above depicts both changes in the cyclical adjusted primary balance and output gap of the British economy. In 2003 and 2008, the year of the recession, the economy experienced a pro-cyclical fiscal expansion. In 2010, 2011, 2013 and 2015, which also coincides with the start of the major fiscal consolidation measure, as shown in table, the economy experienced a pro-cyclical fiscal tightening. The economy further went through periods of counter-cyclical fiscal expansion in the 2009, 2012 and 2014. Year 2006 is very interesting, as it only had counter-cyclical fiscal tightening, meaning government reduction in expenditure and higher taxes in times of economic growth or boom. Some of these years like 2009, 2010 and 2011, had higher levels of accumulated deficits and net debts hence the nature of policy impact. From the periods of 2003 to 2008, the economy grew remarkably and this is shown in the positive outputs but with the continuous negative effects of the crisis, especially on the financial sector, output gaps became negative again from the year 2009 through to 2015.

The authors identified that the United Kingdom has experienced a gradual and largely expenditure based consolidation efforts. In the 90s before the current crisis, public finance had been in good shape with debt levels below 50% of gross domestic product. The implemented programs of the United Kingdom apart from being extensively expenditure based was also a mixture of different measures. Up until 2001, primary balance was positive before the crisis took a hit on the economy. The 2010 consolidation plan has witnessed a continues implementation by various governments, revenue measures towards consolidation has not yielded much impact as expected, as general government debt ratios continues to be very high at about 86% of GDP. But the declines seen in output gaps shows growth has picked up and the United Kingdom efforts towards fiscal sustainability is gradual but will be more successful with a continues and commitment to fiscal targets in the long run as levels of expenditure reduces and budgetary deficit falling below the numerical value of 3% as stated by the Union.

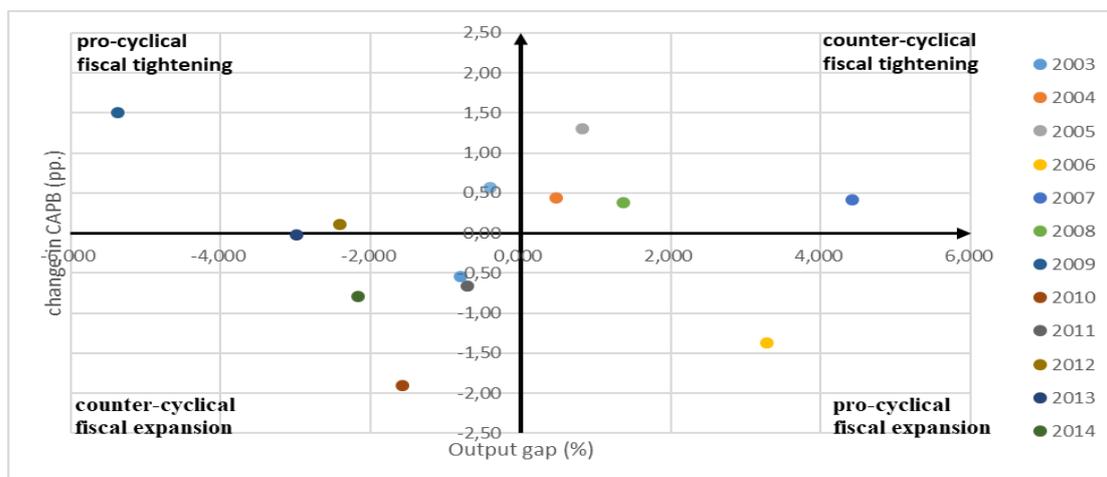
Figure 11. Episodes of fiscal consolidation and policy effects on the Polish Economy



Source: Own calculation based on data from OECD.

The government pursued a pro-cyclical fiscal policy, with the exception of 2005 and 2014, where the economy experienced fiscal tightening but in 2008, it expanded. Changes in the cyclically adjusted primary balance in relation to changes in the production gap in 2003 and 2012 did not give a clear indication of policy assessment. In the 2007 and 2011 government, fiscal policy was of a restrictive nature. With the various outcomes of policy implementation, reduction in the cyclically adjusted primary balance together with lower levels of output gap, a reduction in budgetary deficits, which resulted in ending the excessive procedure as earlier in 2015, and also a sustainable government gross debt of about 54.1% of GDP, efforts of fiscal consolidation have been successful as our results indicate. With growth levels almost back to pre-crisis levels and lower levels of unemployment, there is a positive indication that the recovery programs have been largely successful as efforts of consolidation have been largely revenue based.

Figure 12. Episodes of fiscal consolidation and policy effects on the Swedish Economy



Source: Own calculation based on data from OECD.

In the case of Sweden, the economy also experienced different types of policy effects during its consolidation efforts. In 2009 and 2007, the economy went through a pro-cyclical fiscal tightening but in 2007, a year before the economic crisis, there was a counter-cyclical fiscal policy impact. Only in 2006, did the economy experience a pro cyclical fiscal expansion impulse. The remaining years of 2010, 2011, and 2014 experienced an impulse of counter-cyclical fiscal expansion.

The information contained in the Table 4 below shows a few selected aspects of measures contained in all three selected countries. In some areas similar or identical measures can be found, which shows that despite the economic disparities between these countries, certain areas are of common interest to restore balance in public finance.

Table 4. Revenue and expenditure measures to consolidate public finance: Comparative analyses

	United Kingdom	Poland	Sweden
1 Expenditure measures:			
Hiring freeze	+	n/a	n/a
Wage reduction	n/a	n/a	n/a
Pay freeze	+	+	-
Staff reductions	+	-	-
Reorganization	+	+	+
Efficiency cuts	+	n/a	n/a
2 Programme measures:			
Health	+	+	-
Education	+	n/a	-
Pensions	+	+	+
Unemployment	+	-	+
Other social security/welfare	+	+	+
Infrastructure	+	+	-
Investment reductions	n/a	-	+
3 Revenue measures:			
VAT	+	+	+
Consumption tax: e.g. alcohol, tobacco, energy	+	+	+
Income tax	+	-	+
Corporation tax(bank bonuses)	+	-	-
Non-fiscal revenues	n/a	+	+

Source: Own compilation based on various consolidation plans in COCOPS Trend Report.

+ indicates whether there has been a specific adjustment to items reported in consolidation programmes of the selected countries.

n/a indicates the non-availability of information, – indicates whether there is no reported or adjusted item in the plan of fiscal consolidation.

Findings indicate a successful fiscal consolidation period for the Swedish economy; this positive result can be attributed to a host of factors. Positive net trade positions due to currency depreciations, followed by long periods of economic growth, a diminishing output gap and a lower cyclically adjusted primary balance, all indicate a good and sound public finance system, hence a positive outcome of consolidation efforts. With lower levels of government deficit of about 0.9% of gross domestic product during the crisis, a prevailing budgetary surplus, higher government revenue in relation to lower spending expenditure, the Swedish economy was resilient to the negative shocks of the crisis of 08. Consolidation efforts have been based on both expenditure and revenue side, with expenditure reduction contributing largely to improvements in the fiscal stance. Respect for fiscal rules and institutions, and the application of a debt ceiling in 1998 has all affected positively on a successful positive outcome of fiscal consolidation in the Swedish economy.

8. Conclusions and summary

The importance of fiscal discipline is an undisputed aspect of a monetary union. This requires rules and these rules need proper and unbiased interpretation for all member states regardless of the levels of economic development. The interpretation of these rules raises a question of who is in charge that is the discretion leg of the challenge. To prove they are credible, the institutions and people in charge will have to demonstrate their ability to independently and without any deficit bias execute and implement these rules under all circumstances without any sort of doubt in the Union. Hence, this puts governments out of the equation since most government are fundamentally prone to deficit bias Krogstup and Wyplosz (2006). Until recently, most countries have established fiscal councils made up of experts who help execute agendas for fiscal authorities. Furthermore, for fiscal discipline or consolidation to be successful, the choice of fiscal rules also largely depends on the exchange rate and monetary regime. Empirical works on this by Giavazzi and Pagano (1988) and Frankel et al., (1991) conclude that a pegged exchange rate provides more fiscal discipline, a controversial opinion not shared by, among others, Tornell and Velasco (2000).

With the surveyed countries in the research paper, the UK in addition to the already existing fiscal code, established the Office of Budget Responsibility (2010), with Sweden also setting up a Fiscal Policy Council in 2007 and Poland's Constitutional provisions; all this points to the importance of fiscal institutions and their functions. One drawback of this in a monetary union is that Member States manage and control their budget with the European commission acting as Fiscal Council watchdog without a legal backing to instruct how member States should appropriate funds. This impedes efforts of fiscal discipline, since there is no coordination between national and super national fiscal institutions. As contained in the treaty on Stability, Coordination and Governance that states that as of 2012, "if possible" all countries should have their rules in their respective constitutions, together with a national fiscal council. Furthermore, the clause of no-bailout is strategic to the Eurozone. This rule must be well enforced to deter member states from over reaching their debt limits and ensure the right methodology of how financial markets evaluate and price public debt, Wyplosz (2017).

In case of the UK, the paper concludes that the public finances performance has been weak well beyond than forecasted in the 2010 consolidation plan. Sluggish economic growth, i.e. low GDP growth, rising debt levels with higher costs of financing has prevailed in the United Kingdom. A rise in consumer prices, higher levels of unemployment and lower productivity has been the results of negative impacts the economy experienced. The implementation of loose unconventional monetary policies has not yielded the desired outcome due to other factors that encourages further research. Furthermore, lack of proactive implementation of reforms by the EU commission has been identified as one the problems hampering the process of fiscal consolidation. After series of recommendations and periods of extension for the UK government to correct it budgetary deficit positions, in 2015 the UK had another extension of two years to correct it deficit and could not be sanctioned in terms of fines, because it did not belong

to the Eurozone. However, with much improvement in deficits levels of 4% of GDP in 2015 and 2016, and recently at 2.3% of GDP in 2016/2017, a decision taken by the council on the 5th of December 2017 ended the Excessive Deficit Procedure on Britain. In spite of this development, the gross national public debt still stands at 86.8% of GDP indicating balance in public finance still needs to be restored. The last but not the least findings is that government measures and efforts on fiscal consolidation have been largely expenditure based.

The completion of the Excessive Deficit Procedure in 2015 showed, Poland as an example of country that has implemented a successful fiscal consolidation programme. Its ability to sustain and control the level of public debt, currently around 52% of GDP, lowers the country's cost of debt financing (interest payable). Another important finding in the study is that Poland has successfully sealed majority of loopholes in the tax system, if not all, and lowered the tax gap. Poland is an excellent example of a country where a worsening fiscal stance obliged the government to deepen institutional reforms, with the implementation of the pension funds reform. There is also a consensus among economists that emerging economies achieved relative economic gains during the crisis because of having an under-developed and weak financial sector. Poland is identified as an example of an emerging economy that gained in growth terms and avoided deep economic recession.

The last but not the least country is Sweden. The paper establishes that Sweden had the ability to control its fiscal stance i.e. the stabilisation of fiscal levels. Through various reforms, a gradual diminishing of tax burden on society has been observed, which increases consumers' propensity to consume and save respectively. The paper also identified factors such as a net trade balance, positive output growth after the mid-90s, and a currency devaluation situation that led to an export boom and which fuelled growth through various transmission mechanisms. Additionally, the paper finds out that respect for fiscal rules and institutions by Sweden's fiscal authorities have helped in successful consolidation programmes. Furthermore, the country has been able to lower the level of debt financing from 5.2% of gross domestic product in 1996 to about 0.4% of GDP in 2016, which clearly makes Sweden a credit-worthy country, most international rating agencies have rated Swedish government sovereign bonds one of the best in Europe.

In conclusion, the nature of most consolidation plans are very ambitious and the ability to carry out some of these steps clearly requires the political will needed to succeed. Majority of measures and decisions contained in such consolidation documents are not considered popular especially in times of massive cuts to government expenditure (austerity) in almost all EU member States. The fall-out from some of these programs have been witnessed in Greece, with the introduction of capital controls, riots and eventual change of governments, United Kingdom's Coalition Government under David Cameron, Italian Government under Prime Minister Monte, being examples of some developments that demonstrates clearly that when austerity measures bites, governments lose popularity.

The conducted research on the discipline of public finances showed that belonging to the European Union had an impact on the fiscal policy of all countries. This impact has occurred through the adaptation of these fiscal rules and other institutional solutions assigned to Member States. Although each country pursued an autonomous fiscal policy, it was shaped largely by instruments defined in treaty obligations. This particularly applies to numerical fiscal rules, including the EU expenditure rule. Other tools for public finances recommended by the European Union have had a positive impact on their conditions. These include the stability and recovery programmes, the Excessive Deficit Procedure, the medium-term budgetary objective (MTO), multi-annual financial planning, as well as more sophisticated evaluation criteria, such as cyclical balance, structural balance, and output gap. Most EU countries have created independent fiscal councils that favour the discipline of public finances, either on EU's recommendations or on their own initiative.

There is a noticeable evolution in the European Union authorities approach to public finance discipline of individual countries. This is expressed in shifting the deadlines for recovering from excessive deficits or the pace of reduction of public debt. The financial crisis has led the EU authorities to pay more attention to the income side of public finances as a means of fiscal discipline. The point here is to draw attention to the efficiency of tax administration, tightening of the tax collection system, without necessarily increasing taxes. In general, it can be stated that economic, social and political conditions had been taken into consideration by governments of the countries surveyed in the context of public finance while designing the nature of post crisis fiscal policy. In the process of choosing tools for public finances discipline, the governments used selected tools that were adequate to each countries capability and level of policy accommodation.

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AN ASSESSMENT OF PERSONAL VALUES AND VALUE SYSTEMS OF SPANISH AND INDIAN BUSINESS AND COMMUNICATION STUDENTS

Abstract

Assessing the personal values of the business students are important to study because these students represent the future leaders of organizations. Since the personal values of these students will influence their behaviour and determine the direction of businesses and other organizations in our society, it is useful to learn more about their values. Also, as more schools are recruiting and admitting students from India, it is important to understand if the values of the Indian students differ from the Spanish students.

The business students imparting the major role in building the nation and their personal values very much important Using the Rokeach Value Survey and the Musser and Orke typology this paper examines the Personal values and value systems of business students in India and compares the results with the results of study that we have collected in Spain with similar methodology to examine the values and value systems of Spain Business students. The study also examines the differences in values and value systems of the Spanish students by gender and by major. While there are few differences for the Spanish students by gender, our findings show several differences in the rankings of values by the India and Spanish students as well as differences in value systems. Implications for business education are discussed.

We have compared the results of rankings of both Spanish and Indian Business students in rural and urban areas with the help of Spearman's Rank correlation. In this paper we compared the values between the business students of both India and Spain.

Keywords: Values, Spearman's rank correlation, Rokeach value survey, Indian business and communication students, Spaniard business and communication students

JEL Codes: I23, M10

Introduction

This study measures personal values and value systems of Indian Under graduate business students and Spanish business students. The values have been defined in several ways by researchers, the common view in values research is that values influence behaviour. For example Rokeach (1973, 16) describes values as "enduring beliefs that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence". As a result of the numerous financial frauds that have occurred during the past two decades, there has been increased interest in moral and ethical behaviour by businesses, professional organizations and academic institutions. In addition to a code of conduct, which should guide the behaviour of employees, many organizations have adopted whistle blowing policies and procedures, as an element of internal control, to provide employees with a mechanism to report unethical behaviour. Professional organizations, such as the American Institute of Certified Public Accountants and State Boards of Accountancy now require continuing education in the area of ethics. The curricula at most business schools have changed as there is a greater emphasis on ethical conduct in business courses.

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While there has been considerable research on the values of college students (accounting and business) in the, less research has been conducted on the values of college students, particularly accounting students and business students, in India. This paper continues with a review of research that examined the personal values of Chinese college students. In section two we describe the sample and methodology used in our study. Next, we interpret and summarize the results followed by comments regarding the limitations of the study and recommendations for future research.

Sample and methodology

Using the Rokeach (1973) Value Survey (RVS), we surveyed 92 Indian business students (undergraduate and graduate) in Ananthapur District, India. And 151 business students (undergraduate and graduate) from Madrid and Tenerife, Spain.

The Rokeach Value Survey (RVS) is a classification system that has two sets of values, 18 individual value items). One set is called terminal values, the other instrumental values. RVS is based on a 1968 volume (Beliefs, Attitudes, and Values) which presented the philosophical basis for the association of fundamental values with beliefs and attitudes. Terminal Values refer to desirable end-states of existence. These are the goals that a person would like to achieve during his or her lifetime. These values vary among different groups of people in different cultures. Instrumental Values refer to preferable modes of behavior. Participants in the survey rank the 18 values in each set in order of importance to them, with 1 being most important and 18 being least important. Following is a classification of the values in the RVS.

In this paper we focused on the terminal values of both Indian and Spanish people.

Analysis

Table 1. Descriptive statistics

	Nationality	N	Mean	Std. Deviation
Equality	Indian	92	8.03	4.488
	Spanish	151	7.48	4.650
An Exciting Life	Indian	92	9.02	4.019
	Spanish	151	10.69	4.393
Family Security	Indian	92	4.45	3.599
	Spanish	151	4.23	3.303
Freedom	Indian	92	6.49	3.968
	Spanish	151	5.46	3.828
Health	Indian	92	4.51	3.654
	Spanish	151	2.88	3.219
Inner Harmony	Indian	92	10.95	4.717
	Spanish	151	8.34	4.263
Mature Love	Indian	92	12.08	4.592
	Spanish	151	9.69	4.164
National Security	Indian	92	10.47	4.326
	Spanish	151	11.72	4.032
Pleasure	Indian	92	11.61	3.964
	Spanish	151	10.85	4.086
Salvation	Indian	92	13.48	4.308
	Spanish	151	15.91	3.109
Self-Respect	Indian	92	5.67	4.103
	Spanish	151	7.44	3.820
A Sense of Accomplishment	Indian	92	13.62	3.969
	Spanish	151	12.83	3.650
Social Recognition	Indian	92	10.84	4.104
	Spanish	151	12.95	4.062
True Friendship	Indian	92	7.96	4.959
	Spanish	151	8.57	3.940
Wisdom	Indian	92	11.11	4.694
	Spanish	151	10.19	3.728
A World at Peace	Indian	92	11.76	4.589
	Spanish	151	8.41	4.721
A World of Beauty	Indian	92	12.13	4.386
	Spanish	151	15.07	3.447
A Comfortable Life	Indian	92	6.08	4.509
	Spanish	151	8.43	4.349

Source: Authors

The above table shows the mean values and standard deviation of terminal values of both Indian & Spanish people. The following points are distinguishing the terminal values of both Spanish and Indian people.

1. Spanish people are giving more priority to comfortable life than Indian people.
2. Indians are giving more preferences to equality and Spanish giving more preference to exciting life.
3. Indians are giving more preference to their family security, health & inner harmony than Spanish people.
4. Spanish people are giving more preference to national security, salvation, self-respect, social recognition & to friendship than Indian people.
5. Indian people are giving more priority to wisdom and they will always think & see the world with peace than the Spanish people but the Spanish people giving more priority to the beauty of world rather than peace.
6. Indians are having matured love and they are always giving more priority to freedom rather than Spanish people and the sense of accomplishment is more to the Indians than Spanish people.

An application of Leavens test for equality of variances of terminal values between Indian& Spanish people

Hypothesis

1. There is equality of variance in the terminal values “a comfortable life” of Indian and Spanish people.
2. There are equal variances of “equality” between Spanish and Indian people.
3. There is equality of variance in the terminal value “an exciting life” between Indian and Spanish people.
4. There is equality of values in the terminal value “family security” between Indian and Spanish people.
5. There is equality of variance in the terminal value “freedom” between Indian and Spanish people.
6. There is equality of variance in the terminal value “Health “between Indian and Spanish people.
7. There is equality of variance in the terminal value” Inner harmony” between Indian and Spanish people.
8. There is equality of variance in the terminal value “matured love” between Indian and Spanish people.
9. There is equality of variance in the terminal value “National security” between Indian and Spanish people.
10. There is equality of variance in the terminal value “wisdom” between Indian and Spanish people.
11. There is equality of variance in the terminal value “A world at peace” between Indian and Spanish people “.
12. There is equality of variance in the terminal value “A world of beauty” between Indian and Spanish people
13. There is equality of variance in the terminal values “a comfortable life” of Indian and Spanish people.
14. There are equal variances of “equality” between Spanish and Indian people.
15. There is equality of variance in the terminal value “an exciting life” between Indian and Spanish people.
16. There is equality of values in the terminal value “family security” between Indian and Spanish people.
17. There is equality of variance in the terminal value “freedom” between Indian and Spanish people.
18. There is equality of variance in the terminal value “Health “between Indian and Spanish people.
19. There is equality of variance in the terminal value “Inner harmony” between Indian and Spanish people.
20. There is equality of variance in the terminal value “matured love” between Indian and Spanish people.
21. There is equality of variance in the terminal value “National security” between Indian and Spanish people.
22. There is equality of variance in the terminal value “wisdom” between Indian and Spanish people.
23. There is equality of variance in the terminal value “A world at peace” between Indian and Spanish people “.
24. There is equality of variance in the terminal value “A world of beauty” between Indian and Spanish people “.

Table 2. Independent samples test (part 1)

Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference
									Lower
Equality	Equal variances assumed	.373	.542	.905	241	.367	.549	.607	-.647
	Equal variances not assumed			.913	197.676	.363	.549	.602	-.638
An Exciting Life	Equal variances assumed	2.616	.107	-2.962	241	.003	-1.667	.563	-2.776
	Equal variances not assumed			-3.027	205.594	.003	-1.667	.551	-2.753
Family Security	Equal variances assumed	.450	.503	.488	241	.626	.220	.452	-.670
	Equal variances not assumed			.478	179.652	.633	.220	.462	-.690
Freedom	Equal variances assumed	.218	.641	2.011	241	.045	1.032	.513	.021
	Equal variances not assumed			1.993	186.957	.048	1.032	.518	.011
Health	Equal variances assumed	3.267	.072	3.636	241	.000	1.630	.448	.747
	Equal variances not assumed			3.526	173.807	.001	1.630	.462	.718
Inner Harmony	Equal variances assumed	1.212	.272	4.430	241	.000	2.601	.587	1.445
	Equal variances not assumed			4.322	177.450	.000	2.601	.602	1.414
Mature Love	Equal variances assumed	2.521	.114	4.169	241	.000	2.387	.573	1.259
	Equal variances not assumed			4.071	177.930	.000	2.387	.586	1.230
National Security	Equal variances assumed	.718	.398	-2.288	241	.023	-1.254	.548	-2.334
	Equal variances not assumed			-2.249	181.902	.026	-1.254	.558	-2.355
Pleasure	Equal variances assumed	.020	.887	1.412	241	.159	.754	.534	-.298
	Equal variances not assumed			1.422	196.910	.157	.754	.530	-.292

Source: Authors

Table 2. Independent samples test (part 2)

Salvation	Equal variances assumed	20.951	.000	-5.103	241	.000	-2.436	.477	-3.376
	Equal variances not assumed			-4.725	148.821	.000	-2.436	.516	-3.454
Self-Respect	Equal variances assumed	.399	.528	-3.393	241	.001	-1.763	.520	-2.787
	Equal variances not assumed			-3.334	181.744	.001	-1.763	.529	-2.807
A Sense of Accomplishment	Equal variances assumed	.440	.508	1.573	241	.117	.785	.499	-.198
	Equal variances not assumed			1.541	179.964	.125	.785	.509	-.220
Social Recognition	Equal variances assumed	.162	.687	-3.925	241	.000	-2.117	.539	-3.179
	Equal variances not assumed			-3.915	190.807	.000	-2.117	.541	-3.183
True Friendship	Equal variances assumed	6.496	.011	-1.065	241	.288	-.613	.576	-1.747
	Equal variances not assumed			-1.008	160.106	.315	-.613	.608	-1.814
Wisdom	Equal variances assumed	9.641	.002	1.695	241	.091	.923	.545	-.150
	Equal variances not assumed			1.604	160.052	.111	.923	.576	-.214
A World at Peace	Equal variances assumed	.178	.673	5.423	241	.000	3.350	.618	2.133
	Equal variances not assumed			5.460	196.574	.000	3.350	.614	2.140
A World of Beauty	Equal variances assumed	10.834	.001	-5.811	241	.000	-2.942	.506	-3.940
	Equal variances not assumed			-5.485	158.741	.000	-2.942	.536	-4.002
A Comfortable Life	Equal variances assumed	.145	.704	-4.036	241	.000	-2.354	.583	-3.503
	Equal variances not assumed			-4.001	186.940	.000	-2.354	.588	-3.515

Source: Authors

Interpretation

The table 2 shows the results of Levine's test to check the variances of the terminal values homogenous are not. The 'P' value for the terminal value "A comfortable life" is 0.000 is less than 0.05. Hence we reject the null hypothesis. Therefore the variances of terminal value the comfortable life are not homogenous.

The 'P' value for the terminal value "Equality" is 0.542 greater than 0.05 hence we accept null hypothesis therefore both Indian and Spanish people are giving equal priority for the terminal value "Equality".

The 'P' value for the terminal value "An Exciting life" is 0.107 greater than 0.05 hence we accept null hypothesis therefore there is homogeneous variances of the terminal values of exciting life for both Indian and Spanish people.

The 'P' value for the terminal value "Family security" is 0.503 greater than 0.05 hence we accept null hypothesis therefore there is an equality of variance in the terminal value family security for both Indian and Spanish people.

The 'P' value for the terminal value "Freedom" is 0.641 greater than 0.05 hence we accept null hypothesis therefore there is an equality of variance in the terminal value freedom for both Indian and Spanish people.

The 'P' value for the terminal value "Health" is 0.072 greater than 0.05 hence we accept null hypothesis therefore there is an equality of variance in the terminal value health for both Indian and Spanish people.

The 'P' value for the terminal value "Inner harmony" is 0.272 greater than 0.05 hence we accept null hypothesis therefore there is an equality of variance in the terminal value Inner harmony for both Indian and Spanish people.

The 'P' value for the terminal value "Matured love" is 0.114 greater than 0.05 hence we accept null hypothesis therefore there is an equality of variance in the terminal value matured love for both Indian and Spanish people.

The 'P' value for the terminal value "National security" is 0.398 greater than 0.05 hence we accept null hypothesis therefore there is an equality of variance in the terminal value national security for both Indian and Spanish people.

The 'P' value for the terminal value "Wisdom" is 0.02 lesser than 0.05 hence we reject null hypothesis therefore the variance of terminal values wisdom of Indians are significantly varying with Spanish people.

The 'P' value for the terminal value "A World at peace" is 0.673 greater than 0.05 hence we accept null hypothesis therefore there is an equality of variance in the terminal value a world at peace for both Indian and Spanish people.

The 'P' value for the terminal value "A World of Beauty" is 0.01 lesser than 0.05 hence we reject null hypothesis therefore the variance of terminal values a world of beauty are significantly varying between Indian and Spanish people.

Conclusions

All the terminal values are having slightly varied between Indian Spanish People. A comfortable life, Equality, an exciting life, family security, Freedom, Health, Inner Harmony, Mature Love, National Security, Pleasure, Self-respect, Social recognition are the terminal value having homogeneous preferences for both Indian and Spanish people. For the terminal value friendship Spanish people are giving more importance than Indian business students. For the terminal value world at peace Indian business students are giving more importance than Spanish business students.

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EBRU TURHAN¹

EXTERNAL DIFFERENTIATED INTEGRATION WITH THE EU: CAUSES, POLICY AREAS AND FUTURE OUTLOOK

Abstract

Given the limits of the EU's absorption capacity and some countries' reluctance to become EU members, on the one hand, and the growing interdependence between the EU and its neighbours, on the other, the institutional machinery of the EU's relations with neighbouring non-Member States has been increasingly constructed along the lines of external differentiated integration. External differentiated integration relates to various degrees of deepened cooperation between the EU and non-Member States through third countries' differentiated levels of alignment with the EU's *acquis* and policy fields. While it takes predominantly place between the EU and its neighbours, it is also applied to other partner countries located outside Europe's periphery through looser arrangements. Whereas many studies have been conducted on internal differentiated integration within the EU, literature on external differentiated integration remains limited. This paper aims to shed light on external differentiated integration by focusing on its causes, key policy fields it concerns and its future outlook. It first examines the causes for the increased use of external differentiated integration as a means to form dialogue between the EU and non-Member States by focusing on the key premises of the EU's foreign policy goals, while taking into account the growing interdependence between the EU and third countries and the gradually vanishing possibility of further enlargement waves. Secondly, it elucidates different models of external differentiated integration by addressing following policy fields: internal market, security and defence, and justice and home affairs. The paper lastly provides a future outlook on the potentials of external differentiated integration taking into account recent developments concerning the European integration project including the Brexit process and Turkey's *de facto* frozen accession negotiations.

Keywords: EU, European integration, external differentiated integration, cooperation with third countries, Brexit, enlargement

JEL Codes: F50, F55, F59

Introduction

European Union (EU) studies currently focus on two different dimensions of "differentiated" integration, which refers to the alignment and harmonization of states' policies in economic, political and sociocultural terms at different speeds, scopes and in different policy fields on the basis of the EU's treaties and its *acquis communautaire*, the overarching body of EU law. The first dimension deals with "internal differentiated integration", which relates to an arrangement that welcomes "a variety of forms of cooperation and/or integration in which not all the members of the EU take part" (European Parliament, 2015: 7). In other words, internal differentiated integration within the EU involves the creation of a system that allows for the co-existence of member states' diverging / converging perceptions of European integration. In fact, internal differentiated integration within the EU has been prevailing for many decades as a genuine trademark of the Union as a result of member states' participation / non-participation in many "common" policy fields such as Common Security and Defense Policy (CSDP), Economic and Monetary Union and Justice and Home Affairs (JHA) at varying degrees and times (Turhan, 2017). The latest crises concerning the Eurozone, irregular migration / refugees, Brexit process as well as Ukraine accompanied by the EU-28's limited capability to speak with a single voice in order to respond to such challenges and the gradually increasing divergence among the member

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states with regard to views on Europe's future undoubtedly contribute to the gradual appearance of an "extended" differentiated integration within the EU.

The second, "external" dimension of differentiated integration deals with the EU's dialogue with third countries. In this vein, "external differentiated integration" between the EU and third relates to non-member states' differentiated degrees of participation in relevant EU policies (Schimmelfennig, Leufen and Rittberger, 2015). While just like in the case of "internal differentiated integration" third countries align themselves with different parts of the EU's *acquis communautaire* in selected policy fields throughout the process of external differentiated integration, in contrast to internal differentiation, third countries do not obtain throughout the process of external differentiation the right to participate in EU-wide decision-making and policy-shaping processes in related issue-areas. This culminates in a mutually beneficial yet asymmetrical relationship between the EU and third countries. Given the limits of the EU's absorption capacity and some countries' reluctance to become EU members, on the one hand, and the growing interdependence between the EU and its neighbors, on the other, the institutional machinery of the EU's relations with neighboring non-member states has been increasingly constructed along the lines of external differentiated integration. Whereas many studies have been conducted on internal differentiated integration within the EU, literature on external differentiated integration remains limited. This paper aims to shed light on external differentiated integration by focusing on its causes, key policy fields it concerns and its future outlook. It first examines the causes for the increased use of external differentiated integration as a means to form dialogue between the EU and non-member states by focusing on the key premises of the EU's foreign policy goals, while taking into account the growing interdependence between the EU and third countries and the gradually vanishing possibility of further enlargement waves. Secondly, it elucidates different models of external differentiated integration by addressing following policy fields: internal market, security and defense, and justice and home affairs (JHA). The paper lastly provides a future outlook on the potentials of external differentiated integration taking into account recent developments concerning the European integration project including the Brexit process and Turkey's *de facto* frozen accession negotiations.

Primary motives for external differentiated integration between the EU and third countries

EU's underlying foreign policy goals

Successive EU treaties and various conclusions of the European Council have repeatedly identified the promotion of human rights, universal norms, rule of law, prevention of conflicts, maintenance of security and stability as the primary goals of EU foreign policy (Thomas, 2009). Indeed, the Article 21 of the Treaty on European Union (TEU) related to the general provisions of the Union's external action refers to manifold components such as consolidation of democracy, rule of law, preservation of peace, support for sustainable economic development in developing countries, and last, but not least, the safeguarding of the EU's own interests, security and independence as the key goals of EU foreign policy / external action (Official Journal of the European Union, 2012: 28-29). Thus, according to the EU's overarching foreign policy goals, a strong linkage does exist between the promotion of universal democratic principles and prosperity in third countries and the Union's own strategic interests, its security and stability. Article 8 of the TEU hints more clearly at the establishment of an exclusive dialogue and cooperation framework with the EU's immediate neighborhood on the basis of the EU's values: "The Union shall develop a special relationship with neighboring countries, aiming to establish an area of prosperity and good neighborliness, founded on the values of the Union and characterized by close and peaceful relations based on cooperation" (Official Journal of the European Union, 2012: 20).

The treaty's emphasis on the creation of a special cooperation framework with third countries on the basis of the Union's own values, indirectly points to these countries' alignment with the EU's *acquis*, which is considered as the overarching body of EU law, and consequently, as a reflecting mirror of the

EU's fundamental values. In a similar vein, the 2015 Review of the European Neighborhood Policy (ENP), one of the primary EU foreign policy tools, states that "the EU's own stability is built on democracy, human rights and the rule of law and economic openness" (European Commission, 2015: 2) and that the ENP's key instruments culminates "in the partners' comprehensive approximation with international standards and EU legislation and standards" (European Commission, 2015: 8).

Growing interdependence between the EU and third countries

Interdependence acts as a primary driver of both "internal" and "external" dimensions of integration. Some of the leading European integration theories such as liberal intergovernmentalism and neofunctionalism explain the kick-off and further evolution of the European integration process with a) gradually increasing policy externalities in the international fora, i.e. impact of states' policies on interests and preferences of other states as well as b) with the interdependence between different economies and their related sectors (automatic spillover process) (Schimmelfennig, Leufen and Rittberger, 2015). Interdependence in socio-economic and political terms does not only occur among the member states of the EU but also between the EU and various third countries that are located both in the immediate neighborhood as well as outside the European periphery, which fosters external differentiated integration between the EU and non-member states.

The 2016 EU Global Strategy titled "Shared Vision, Common Action: A Stronger Europe" clearly emphasizes the growing interdependence between the EU and non-member states and the EU's intention to foster intense issue-specific cooperation with third countries as a resort to minimize the negative externalities that are likely to arise from growing interdependence, as follows: "The external cannot be separated from the internal. In fact, internal policies often deal only with the consequences of external dynamics. We will manage interdependence, with all the opportunities, challenges and fears it brings about, by engaging in and with the wider world" (EEAS, 2016: 17). In a similar vein, the 2015 Review of the ENP refers to incidents such as the refugee crisis, supply of energy security and the occurrence of terrorist attacks in the EU and its neighborhood as driving factors behind increasing levels of interdependence between the EU and its wider neighborhood (European Commission, 2015). In particular, last years' unprecedented levels of irregular migration flows to the EU with the outbreak of the Syrian civil war created significant negative externalities following the transformation of the refugee crisis from a crisis of Syria and its immediate neighborhood into a European crisis throughout the second half of 2015. This situation is described by Ayselin Gözde Yıldız (2016: 21) as "reverse interdependence" as it represents a contrast to many cases, where issue-specific asymmetrical interdependence between the EU and third countries has been in favor of the EU.

Territorial proximity between the EU and the third countries plays a major role in the identification of the scope of interdependence, and consequently, the range as well as mode of external differentiated integration between both parties. While the EU has been initiating comprehensive and overarching modes of external differentiated integration with its immediate neighborhood, it has been forming with countries located outside its periphery rather sector-specific, a la carte forms of external differentiation (Lavenex, 2014).

The limits of the EU's widening

The enlargement process of the EU has been widely regarded by both the key representatives of leading EU institutions as well as many scholars as the Union's most powerful foreign policy tool (Rehn, 2005; Sjursen, 2006). That being said, this primary foreign policy tool of the EU, which has been for decades contributing to the pursuit of the EU's key foreign policy goals stated in previous sections (i.e. the safeguarding of the EU's own interests, values and stability by the EU's acting as a transformative power in candidate countries by providing support for candidate countries' prosperity and their adherence to universal democratic principles) has been gradually reaching a dead-end. Jean-Claude Juncker, the current President of the European Commission (EC), stated in his guiding principles, which were published ahead of the kick-off of his presidency in April 2014, that whereas under his presidency of the EC (2014-2019) ongoing accession negotiations with candidates were going to continue, and that particularly the Western Balkans would need a European perspective, the EU was not going to accept any new member (Juncker, 2014). The accession negotiations with Turkey are de facto frozen for many years and some of the Balkan countries are likely to become the last countries to join the EU. Thus, in order to maintain its transformative power in its immediate neighborhood, eliminate the negative externalities that are likely to arise from gradually increasing interdependence between the EU and its periphery in economic, foreign policy related and societal issues and in order to avoid a steadily "shrinking EU in an expanding planet" (Kaleağası, 2013: 1), the EU will need to accomplish "extended" external differentiated integration with non-member states.

Policy-specific external differentiated integration

The single market

Third countries' inclusion in EU's internal market can be identified as the most overarching and deepest form of external differentiated integration between the EU and third countries. The internal market includes EU28, Norway, Iceland and Liechtenstein via the Agreement on the European Economic Area (EEA) and Switzerland via manifold bilateral agreements. In the case of the internal market, these four countries' public opinion's rejection of full membership in the EU accompanied by high levels of economic interdependence between these countries and the EU gave birth to an external integration mode on the basis of the Single Market. The enormously high degree of economic interdependence between the EU and the "external" members of the Single Market is in particular evident in the case of Norway and Switzerland. While Switzerland is the EU's third biggest trade partner, Norway serves as the EU's seventh biggest trading partner (European Commission, 2016). Transfer of universal democratic values to the legal bodies and legislations of these "external" members of the internal market has never been at the crux of this mode of external differentiated integration, as they are "in fact, eligible for full membership of the EU, and fully comply with the norms and values of the Union" (Turhan, 2017: 5). That being said, external economic integration between the EU and the "external" members of the internal market gradually spilled over into further intertwined policy fields such as the Schengen Area, transport, research, media and education (Gstöhl, 2016).

Security and defense policy

Third countries do not formally participate in the EU's CSDP and, hence, from a purely legal point of view, external differentiated integration does not formally occur in the sphere of security and defense policy (Schimmelfennig, Leufen and Rittberger, 2015). That being said, "informal" external differentiated between the EU and third countries has become decades ago a reality in the realm of CSDP. "Informal" external differentiated integration particularly occurs by means of third countries' participation in the military and civilian CSDP missions at varying degrees and their differentiated alignment with the EU's Common Foreign and Security Policy (CFSP) positions and declarations.

Around 45 third countries have been involved in CSDP operations since the initiation of the first operation in 2003 (Ganslandt, 2017). The multifaceted cooperation between Turkey and the EU in the sphere of security and defense policy constitutes a good example of external differentiated integration. Meltem Müftüler-Baç emphasizes the high degree of external differentiated integration between both parties with regard to the CSDP, as follows: “Turkey participated in nine out of 30 only EU-led operations with significant participation in the Balkans, making its contribution one of the largest after France, Germany and the UK in general” (Müftüler-Baç, 2017: 428). As far as Turkey’s alignment of the EU’s CFSP declarations and positions are concerned, a pattern of gradual decrease and divergence could be observed: Turkey’s alignment with CFSP declarations dropped from 98 percent in 2007 to 44 percent in 2016 (compiled from the European Commission’s Progress Reports).

Justice and home affairs

JHA, above all, deals with the management of the EU’s external borders, the maintenance of free movement of persons within the EU’s internal borders by means of the Schengen Agreement, judicial and police cooperation as well as the development of common minimum standards for member states’ asylum and immigration policies. A very clear example for the existence external differentiated integration in the sphere of JHA is third countries’ participation in the Schengen Agreement. As stated in the previous parts of this paper, the three EEA countries (Norway, Iceland and Liechtenstein) and Switzerland are acting as “external” members of the Schengen Area. Moreover, the EU has been conducting / has conducted for many years visa liberalization dialogues with third countries such as Eastern Partnership Countries Moldova, Ukraine and Georgia, Western Balkans countries including Macedonia, Montenegro and Serbia and more, recently, since December 2013 with Turkey. In a similar vein, visa facilitation dialogues have been launched with some African countries and participants of ENP (Trauner and Kruse, 2008). By means of visa liberalization and facilitation dialogues, which are founded on the political conditionality of the alignment of third countries’ asylum and immigration policies with the EU standards and of the enhancement of bilateral cooperation on border management and organized crime, transfer of EU rules is fostered. Further tools of (lower degree of) issue-specific external differentiated integration are cooperation and working arrangements between Europol / Frontex and third countries such as Colombia, Canada, Nigeria and USA (Lavenex, 2015).

Future outlook and conclusions

This paper aimed to elaborate on external differentiated integration by examining its causes and key policy fields it deals with. It identified three primary motives for external differentiated integration between the EU and non-member states: a) the EU’s overarching foreign policy goals concerning the transfer of EU rules and standards, promotion of universal democratic principles and by doing so, the safeguarding of the EU’s very own security and stability; b) the growing interdependence between the EU and third countries in socio-economic and foreign & security policy terms and the policy externalities that arise from enhanced interdependence; and c) the limits of the EU’s enlargement and the necessity of finding new ways to transfer related parts of the EU acquis to other countries without providing them with the perspective of full membership in the Union. Taking into account these key causes the paper identified three key policy fields, where different forms of external differentiated integration are far and wide evident. While the internal market of the EU can be regarded as the oldest and most extensive “formal” form of external differentiation, external differentiated integration in the sphere of security and defense policy occurs rather in an “informal” manner.

Various forms of external differentiation between the EU and third countries in the field of JHA gained ground in recent years as a result of negative externalities that arose from unprecedented irregular migration flows and necessity to effectively manage the external borders of the EU in view of growing numbers of cross-border organized crime and terrorism. The implications of the Eurozone crisis for

European economies have demonstrated that member states' biggest export market, the internal market, is fragile and enhanced / deepened external cooperation is a necessity for the EU to remain globally competitive. On the other hand, the negative externalities of the Syrian civil war, and consequently the irregular migration flows to the EU as well as the externalities that have been arising from power vacuums and fragile states that culminate in cross-border extremism demonstrated the growing interdependence between the EU and third countries that are located outside the European periphery, and the increasingly blurred thin line between domestic and foreign policy. This brings about the necessity for "extended" external differentiated integration between the EU and many third countries in the immediate future. The exit negotiations with the United Kingdom, a future non-member state that achieved an enormous degree of integration with the EU, particularly in the spheres of trade and security policy, accompanied by the evolution of Turkey's relationship with the EU increasingly outside of the framework of accession negotiations (Turhan, 2017) unavoidably lead to a future founded on "extended" and "expanded" external differentiated integration between the EU and third countries.

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FACTORS INFLUENCING DESTINATION RECOMMENDATION AND TOURISTS' REVISIT INTENTIONS

Abstract

Tourism satisfaction, destination recommendation and tourists' revisit intention constitute crucial issues for tourism development and have drawn the attention of tourism researchers and practitioners worldwide. According to Oliver (1999) tourism satisfaction is a necessary prerequisite, but it is not capable of creating tourists' loyalty (i.e. revisit intention and destination recommendation). Many tourists may express high levels of satisfaction, although they have no intention to revisit the destination (Kyriakaki et al., 2016; Lee et al., 2007). In addition, several empirical studies evidences that tourism satisfaction has a positive effect on the destination recommendation (Yoon and Uysal, 2005; Zhang et al., 2014).

The aim of this paper is to investigate the factors that influence tourists' intention to revisit a destination and recommend it to family and friends. To achieve the above aim, the researchers conducted a primary research, using a self-completed questionnaire, which was distributed to a random sample of 305 Turkish tourists on the Island of Chios (Greece). The authors used factor analysis and multiple regression analysis to process the primary data. The research indicated that, the visit frequency, the perceived value and the tourism satisfaction associated with specific destination attributes (tourism services, gastronomy, local culture and friendliness) have positive effects on tourists' intention to revisit and recommend the destination. Multiple regression analysis identified a strong correlation between the satisfaction derived from accommodation services, intention to revisit the destination and the willingness to recommend the destination to family and friends. The findings lead to important scientific and practical conclusions.

Keywords: Tourism satisfaction, destination recommendation, revisit intentions

JEL Codes: Z32

1. Introduction

The growing competitiveness among tourist destinations has made it necessary to study the factors that lead to increased tourist satisfaction and willingness to revisit or recommend a destination. According to several researchers (Yoon and Uysal, 2005; Li et al, 2010; Zhang et al., 2014), the last two factors constitute "tourism loyalty", which contributes significantly to strengthening competitiveness and ensuring sustainability of a destination's tourism development.

The willingness to revisit and recommend a tourist destination is affected by a series of internal and external factors, which have either existed prior to the tourist experience itself (expectations, previous experiences, destination image, etc.) or they are evaluated during tourists' stay at a destination (tourism product quality, destination attributes, local hospitality, etc.).The aforementioned factors affect tourist satisfaction to a lesser or greater extent and contribute to shaping the attitudes after the visit, i.e. the willingness to revisit or recommend a destination to others.

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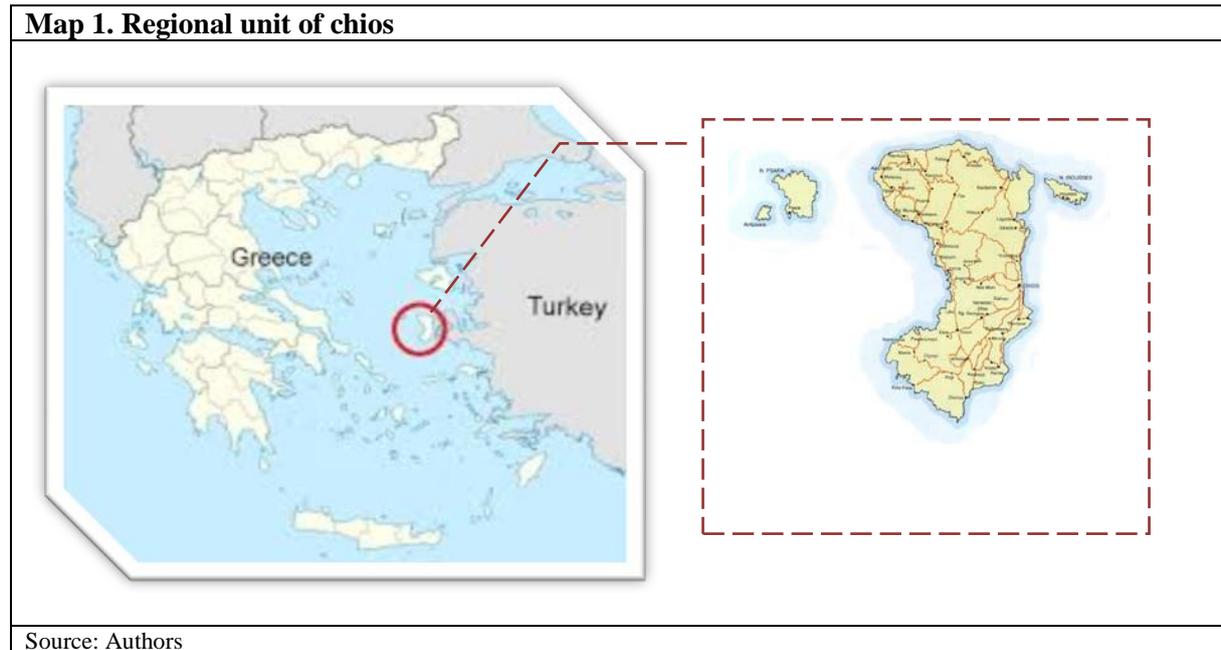
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Given that being able to forecast tourist behaviour after the visit with regards to tourists' willingness to revisit or recommend a destination is quite important both for scientific and for marketing and planning purposes, this study focuses on the island of Chios (fifth biggest Greek island, which is located in the North-eastern Aegean Sea and borders Turkey). Island destinations are especially vulnerable destinations with their limited area, special attributes and geographical inconsistency often being rather "disadvantageous" to their development; tourism activity could play an important role for island development.

Map 1. Regional unit of chios



Source: Authors

According to the official data of the North Aegean Region (2017) inbound tourism from Turkey has increased by more than 143% (from 29,928 in 2012 to 72,884 in 2016). This fact, combined also with some other factors (economic crisis, refugee crisis, change of policy of tour operators, etc.), makes tourist arrivals from the neighbouring country to major income source for the island of Chios, followed by the arrivals from Northern Europe, USA and Greece (domestic tourism). Due to the importance of Turkish tourists for the island's tourism development, this research focussed on examining their opinions about the factors contributing to their satisfaction and of course to their willingness to revisit the island and recommend it to their friends, acquaintances and/or relatives.

2. Literature review

2.1. Tourist satisfaction

In 1989, Chon supported that tourist satisfaction arises from the comparison of previous images that a tourist has about a destination and real feelings, images and experiences that a tourist acquires during the visit to the above destination. Accordingly, in 1997, Roest and Pieters defined satisfaction as a relative concept that includes cognitive and emotional parameters mainly related to the customers themselves (and less to the product). In a different approach, Moutinho (2001) defined tourist satisfaction as the degree to which customers feel that they have been rewarded from a destination (in total), taking into account the sacrifices they have made for their journey.

Tourists' total satisfaction is the result of the satisfaction they get from individual products, services and activities comprising the tourism product, which –however- do not affect tourist satisfaction equally or

to the same extent. The satisfaction elements can be different from one tourist to another (for example, depending on the country of origin) and from one destination to another (Hui, Wan and Ho, 2007). Still, even if some of the elements related to tourist satisfaction are missing, this does not automatically mean that tourists will be discontented. Lichtle, Llosa and Plichon (2002), described four categories of elements that contribute to tourist satisfaction:

- Key elements, which contribute significantly to satisfaction, whether they are positive or negative (e.g. guest reception in hotels);
- Plus elements, which contribute to satisfaction if they are positively evaluated, but do not cause discontent if they are negatively evaluated (e.g. offering a welcome drink to guests upon arrival);
- Basic elements, which contribute significantly to discontent if evaluated negatively, but have a minor impact on satisfaction when evaluated positively (e.g. cleanliness);
- Secondary elements, which contribute only slightly to satisfaction and discontent as they are not major issues for tourists.

Due to the heterogeneity of the tourism product it should be noted that there is an important degree of difficulty involved in the process of measuring tourist satisfaction with a destination. Said difficulty lies both in the destination itself and in the diffusion of knowledge/ information among all local stakeholders (Dmitrovic et al., 2009).

2.2. Tourist revisit and destination recommendation (tourist loyalty)

Revisiting a destination and recommending it to others or encouraging others to visit it is the most important parameter of tourist loyalty (Zhang et al., 2014). In 2001, Kozak supported that tourists who had visited a destination once or more times were more likely to revisit it again in the future, thus demonstrating an increased loyalty. An important parameter of satisfaction from the consumption of a (tourism) product or service is its correlation with the attitudes following said consumption (Kandampully and Suhartanto, 2003). The degree of tourists' satisfaction is directly related to their willingness to recommend a destination to their relatives and friends, but also to their intention to revisit the destination themselves in the future (Valle et al., 2006). As a result, the intention to revisit is a clear indication of satisfaction with a destination (Um, Chon and Ro, 2006) or a single tourism enterprise, but this does not mean that satisfaction alone can ensure revisiting a destination or an enterprise.

Word-of-Mouth (WoM) communication is one of the most important factors for forecasting and affecting future behaviours of tourists. In many cases, WoM is the most important source of information for potential tourists, especially in the modern society of information. According to Severt et al. (2007), the positive WoM is a much more effective method for affecting consumer behaviour than other conventional forms of advertising, such as newspapers and magazines, personal sales and/or the radio (700%, 400% and 200% respectively). The correlation of a positive WoM with the intention to revisit a destination and/or an enterprise was also revealed by other studies, which indicated the relation between service quality and WoM recommendation (Cantalalops and Salvi, 2014; Liu and Lee, 2016).

The maintenance of the existing tourists is very important for the development and sustainability of all tourist enterprises and destinations. Furthermore, repeat visitors constitute a much-desired market segment as they tend to stay longer at the destination (Oppermann, 2000) and to participate to a greater extent in consuming activities (Lehto, O' Leary and Morrison, 2004). Repeat visitors are also cost-effective, since the marketing costs for their maintenance are lower than the costs of attracting new tourists. According to Zhang et al., (2014) tourists loyal to a destination tend to have a positive attitude towards this destination and a positive WoM.

Many research have revealed that there are several parameters affecting the decision to revisit and recommend a destination, for example: destination attachment, personal involvement (Chen and Phou, 2013; Veansa, Wu and Huang, 2013; Kyriakaki et al., 2015), tourists' expectations, perceived quality, perceived value (Petrick, 2004; Yoon and Uysal, 2005; Aliman et al., 2016), previous tourists' experiences (Kaplanidou and Vogt, 2007), tourist satisfaction (Um, Chon and Ro, 2006; Xia et al., 2009; Dmitrovic et al., 2009; Zabkar, Brencic and Dmitrovic, 2010; Prayag and Ryan, 2012; Aliman et al., 2016), destination image (Chi and Qu, 2008; Zhang, et al., 2014; Ramseook-Munhurrun, Seebaluck and Naidoo, 2015; Chiu, Zeng and Cheng, 2016), quality of tourist services, quality of destination elements/attributes (Serrato et al., 2010; Aliman et al., 2016), nationality of tourists (Mechinda, Seritat and Gulid, 2009), the distance between the place of residence of the tourists and the destination (McKercher and Denizci, 2011), the stage of the tourist development of a destination (Kozak, 2001), and others. Even the time interval from the last visit to a destination affects the intention to revisit it: the more time goes by the less becomes the intention to revisit a destination, whereas after some time the intention to revisit can be eliminated (Oppermann, 1998).

Of course, many of the above factors are very difficult to identify and control both at the level of the organisation (tourism enterprise) and at the level of the destination. Still, if tourists acquire memorable tourism experiences related to a destination this leads to increased likelihood to revisit (Zhang, Wu and Buhalis, 2017; Barnes, Mattsson and Sorensen, 2016), whereas the local culture is a factor shaping said experiences (Kim, Ritchie and Tung, 2010) and at the same time affecting the shaping of a positive WoM.

2.3. Tourist satisfaction in correlation with the intention to revisit and recommend a destination (WoM)

The importance of satisfaction lies in its impact on future decision-making as according to Swan and Combs (1976) satisfaction is considered “*a post-purchase attitude which affects cognitive and affective aspects in pre-purchase, purchase, and post-purchase phases of buying goods and/or receiving services*”, as quoted by Severt et al. (2007, p.401). According to Anderson (1998), very discontented or very satisfied customers tend to participate in more WoM activity in relation to customers who are less discontented or satisfied. Additionally, discontented tourists tend to participate more in WoM activity compared to satisfied customers. In any case, tourist satisfaction plays an important role both for the initial selection of a destination and for the intention of tourists to revisit it again (Yoon and Uysal, 2005) or recommend it to others. The research of Yuksel, Yuksel and Bilim (2010), revealed the strong correlation between satisfaction and customer intention to show loyalty and consequently revisit.

According to Soderlund (1998), the increase of customer satisfaction does not lead to proportional increase of their loyalty, as there are many factors contributing to customer loyalty. According to Oliver (1999) satisfaction is a necessary prerequisite, but it is not capable of creating consumer loyalty (i.e. purchase/revisit intention and WoM). Many tourists may express high levels of satisfaction, although they have no intention to revisit a destination, given that this choice is influenced by a plethora of internal and external factors (Kyriakaki et al., 2016; Lee, Yoon and Lee, 2007). For example, according to Plog (1974), allocentric tourists are constantly searching for new locations, alternative and not particularly known destinations. Consequently, no matter how satisfied they are from their visit to a destination they would hardly revisit the same destination. Still, as revealed by tourism literature, tourist satisfaction is undoubtedly strongly correlated with the recommendation of a destination (Chiu, Zeng and Cheng, 2016; Kyriakaki et al., 2016; Ramseook-Munhurrun, Seebaluck and Naidoo, 2015; Zhang et al., 2014; Serrato et al., 2010; Chi and Qu, 2008; Yoon and Uysal, 2005).

Tourist loyalty to a destination is strongly related to the willingness to revisit said destination, a fact that is attributed to the total satisfaction that a tourist received from the previous visit to the above

destination. A correct and effective destination image acts as a catalyst for tourist satisfaction (Lu, Chi and Liu, 2015) and consequently for the attitudes related to it. Consequently, the investment in improving a destination's image can lead to boosting the likelihood to revisit the above destination in the future (Assaker, Vinzi and O' Connor, 2011).

3. Methodology

This paper employed the quantitative method of research by means of a self-completed questionnaire. 305 correctly filled out questionnaires were collected from Turkish tourists that visited Chios between January and March 2016. Convenience sampling was used for the selection of the sample. The selection of the units of the sample was based only on one criterion: convenience, which in this case means that the Turkish tourists were randomly selected among those who were about to depart for their return journey to Turkey. The above technique has been very popular and widely used over the years in social sciences

The participants were requested to fill out a structured questionnaire, which included closed-type questions, most of which were primary as well as 5-point Likert scale questions (1 = not at all; 5 = very much). The participants replied to the questions in the same order, a fact that ensured a higher reliability (Clark-Carter, 2004). The questionnaire comprised three sections: the first one included questions related to the demographic characteristics of the participants; the second section was about the special attributes of the journey, whereas the third one collected information about the loyalty and satisfaction of the participating tourists.

Several types of statistical analysis were used for the processing of the data collected. First, the reliability of the data was checked using an appropriate reliability test that allows estimating the internal consistency of the questionnaire data (Gadernann et al., 2012). For this purpose, Cronbach's α (alpha) reliability index was used, which is internationally accepted. Descriptive statistical measures were used to analyse the profile of the participants along with an χ^2 test, which is an inferential analysis method that allows estimating whether two or more samples differ significantly between them. The statistical analysis was completed with a series of multinomial logistic regression (MLR) analyses to determine the dependencies between the examined variables and to define more accurate statistical prediction models.

4. Research findings

4.1. Sample profile

Regarding the sample's demographic data, most Turkish tourists were residing in Izmir (80.67%), were middle-aged (53.3%), highly educated (64.7% university graduates), and employed mainly in the private sector (42.0%). In their majority they were married (42.0%), with an average family income ranging between TL1,000 and TL5,500 (57.3%) and had a blue passport (68.7%).

Table 1. Demographic characteristics of the sample

	(%)		(%)
<i>Sex:</i>		<i>Educational background</i>	
Male	52.60	Primary School	2.70
Female	47.30	Junior High School	1.30
		Senior High School	17.30
<i>Permanent residence:</i>		Vocational School	3.30
Constantinople	4.76	University	64.70
Izmir	80.67	Master's degree	6.00
Aydin	3.33	Doctorate	4.70
Kusadasi	2.00		
Cesme	0.67	<i>Occupation:</i>	
Other	8.57	Civil servant	10.00
<i>Age:</i>		Private Employee	42.00
15-30	22.70	Freelancer	24.00
31-45	53.30	Student	7.30
46-65	24.00	Military Officer	0.70
>66	0.00	Unemployed	0.00
		Housewives/Househusbands	4.70
		Other	11.30
<i>Marital Status:</i>		<i>Monthly income (in TL):</i>	
Single	32.70	<865	2.00
Married	42.00	866-1000	3.40
Married with Children	23.30	1001-5500	57.30
Divorced	2.00	5501-6827	13.30
		6828-25000	14.00
<i>Passport:</i>		>25000	4.00
Blue	68.70	no answer	6.00
Green	7.00		
Other	24.00		

Source: Authors

4.2. Factor analysis

Factor analysis was used for the questions related to the satisfaction of Turkish tourists which comprised 31 variables divided into four groups. The objective of the analysis was to identify common factors among the satisfaction variables, which are related to the following: a) attractions and infrastructure, b) hospitality sector, c) interaction with local residents, and d) local market.

The first group of variables (**Factors of satisfaction with attractions and infrastructures - FSAI**) is related to the satisfaction of Turkish tourists with the existing tourism infrastructure. First, the reliability of the data was tested (Cronbach's α (alpha) = 0.923), which was very high. Following that, and in order to check the suitability of the data for factor analysis, a test was made to the correlation table, which revealed that most correlations were statistically significant and ranged between 0.3 and 0.7. The Kaiser-Meyer-Olkin index was calculated, which was also very high (0.841), as well as the MSA value for all variables involved (higher than 0.7). The above confirmed that a factor analysis could be conducted, which in its turn revealed that some variables can be grouped into three factors, thus interpreting 65% of the overall variability.

- The first factor (FSAI1) concerns the *cultural inheritance of Chios and its gastronomy* (historical monuments and museums, traditional events, cuisine/gastronomy, architecture, villages and local products, etc.).
- The second factor (FSAI2) concerns *public services and infrastructures* (public transportation, sport activities, night life, entertainment costs, and medical care).
- The third factor (FSAI3) concerns the *road network and its cleanliness* (cleanliness of the city, the roads and the pavements).

Table 2. Satisfaction with island attractions and infrastructures

How satisfied are you with:	Factors			Mean
	FSAI1	FSAI2	FSAI3	
the beaches?	.832			3.60
the cuisine/gastronomy?	.726			3.83
the villages?	.721			3.70
the architecture?	.718			3.58
the historical monuments and the museums?	.692			3.55
the traditional events?	.654			3.73
the local products?	.642			3.61
the cost of food?	.587			3.61
Mean				3.65
the public transportation?		.720		2.90
the entertainment/night life?		.705		3.53
the sport activities?		.685		2.76
the entertainment costs?		.668		3.66
the medical care?		.579		3.05
Mean				3.18
the pavements?			.844	3.83
the roads?			.839	3.45
the cleanliness of the city?			.762	3.51
Mean				3.59
Total mean				3.26

Source: Authors

With respect to the participants' satisfaction with the aforementioned factors, the study revealed a medium degree of satisfaction (M=3.26). The participants were more satisfied with the gastronomy (M=3.65) and cultural events (M=3.73) of Chios and less with its sport activities (M=2.76) and public transportation (M=2.90).

The second group of variables (**Factors of satisfaction with the hospitality sector - FSHS**) is related to the satisfaction of Turkish visitors with the island's hospitality sector (Cronbach's α (alpha)= 0.907). The most statistically significant correlations between variables ranged from 0.5 to 0.8. The Kaiser-

Meyer-Olkin index (0.881) was very high and the MSA value for all variables exceeded 0.8, thus it can be concluded that the data are suitable for factor analysis. The aforementioned variables can be grouped into two factors, thus interpreting 79% of the overall variability.

- The first factor (FSHS1) is related to the *accommodation services* (premises, services, quality of services, value for money, etc.).
- The second factor (FSHS2) is related to the *behaviour of the staff*.

Table 3. Satisfaction with the hospitality sector

With respect to your accommodation, how satisfied are you with:	Factors		Mean
	FSHS1	FSHS2	
the premises?	.894		3.61
the services?	.847		3.85
the cleanliness?	.801		3.64
the security?	.761		3.78
the value for money?	.700		3.60
Mean			3.69
the behaviour of the staff?		.943	4.08
Total mean			3.76

Source: Authors

With respect to the participants' satisfaction with the aforementioned factors, the study revealed that the greatest satisfaction was recorded with the services (M=3.85) and mainly with the behaviour of the staff (M=4.08). However, the participants were less satisfied with the premises and the value for money (M=3.61 and M=3.60 respectively).

The third group of variables (**Factors of satisfaction with the residents - FSR**) is related to the satisfaction of Turkish tourists with their interaction with local residents (Cronbach's α (alpha)= 0.897). The correlation table illustrated that all correlations are statistically significant and range between 0.7 and 0.8. The Kaiser-Meyer-Olkin index is at 0.741 and the MSA value for all variables exceeds 0.7. Consequently, it can be concluded that the above data are suitable for factor analysis. The examined variables can be grouped into one factor, thus interpreting 83% of the overall variability.

- The factor FSR1 is related to the *interaction with local residents* (hospitality, behaviour of local residents and willingness to be helpful).

Table 4. Satisfaction of Turkish tourists with the residents

With respect to your interaction with local residents, how satisfied are you with:	Factor	Mean
	FSR1	
their willingness to help and assist you?	.372	4.03
the hospitality?	.369	4.07
their behaviour?	.357	3.94
Total mean		4.01

Source: Authors

A high degree of satisfaction was recorded with respect to the participants' satisfaction with their interaction with local residents, a fact that indicates an especially positive behaviour of local residents towards tourists, which complies also with the results related to staff behaviour in various accommodations.

The fourth group of variables (**Factors of satisfaction with local market - FSLM**) concerns the satisfaction of Turkish tourists with shops (Cronbach's α (alpha)=0.863), where most correlations, which are statistically significant, ranged between 0.5 and 0.75. The Kaiser-Meyer-Olkin index is very high (0.873) and the MSA value exceeds 0.8. According to the above, it can be concluded that the above data are suitable for factor analysis. The aforementioned variables can be grouped into two factors, thus interpreting 79% of the overall variability.

- The first factor (FSLM1) is related to *services and helpfulness in shops* (staff behaviour, value for money of articles bought, etc.).
- The second factor (FSLM2) is related to the opening hours of shops.

Table 5. Satisfaction of Turkish tourists with local market

With respect to shops, how satisfied are you with:	Factors		
	FSLM1	FSLM2	
the environment?	.896		3.65
the quality of products?	.889		3.56
their innovation?	.840		3.48
the value for money?	.808		3.26
the behaviour of the staff?	.788		3.93
Mean			3.57
the opening hours?		.981	2.08
Total mean			3.32

Source: Authors

A low degree of satisfaction was recorded with respect to the participants' satisfaction with the opening hours of shops ($M=2.08$), as opposed to the much higher satisfaction with the staff ($M=3.93$) and the environment of shops ($M=3.65$).

4.3. Correlations

The statistical analysis of the data is concluded with the examination of the creation of a suitable prediction model. The dependent variable that needs to be interpreted is the question "Would you visit Chios again in the future?" (Q20). Given that the above variable is categorical and has three levels [(Yes (L1), Maybe (L2) and No (L3)] the model to be evaluated must be created using multiple logistic regression. The model of said regression has the following form:

$$OR = \frac{ProbabilityLevel_i}{ProbabilityBaseLevel} = e^{b_0 + b_1 * X_1 + b_2 * X_2 + \dots}$$

A number of factors were selected, which affect the dependent variable. According to the correlations arising from the previous stage, it is ascertained that the dependent variable is correlated with the factors: FSAI1 (*cultural inheritance of Chios and its gastronomy*), FSHS1 (*accommodation services*) and FSLM1 (*services and helpfulness in shops*). The initial model includes the three particular factors and the following questions: "Were your expectations from your visit to Chios fulfilled?" (Q19); "Would you recommend Chios as a destination to your friends and family?" (Q21); and "How do you evaluate your tourist experience in relation to the cost of the trip?" (Q22), given that the above revealed a strong correlation with the question: "Would you visit Chios again in the future?" (Q20).

From the analysis of the initial model, as to the level of 5% significance ($\alpha=0.05$) the following were selected as statistically significant: the factors of FSHS1 and the pseudo-variable d21.2 (the variable of L2 (MAYBE) of the question: "Would you recommend Chios as a destination to your friends and family". The model arising is as follows:

$$OR = \frac{ProbabilityLevel_2}{ProbabilityLevel_1} = e^{-1.67 - 0.55 * FSHS1 + 3.33 d21.2} = 0.19 + 0.576 FSHS1 + 27.96 d21.2$$

Where:

1. OR: the model interpreting the likelihood of L2 (MAYBE) of Q20 as to L1 (YES).
2. FSHS1: is the factor 1 of FSHS (accommodation services)
3. d21.2: is the pseudo-variable of L2 of Q21.

Model Interpretation OR:

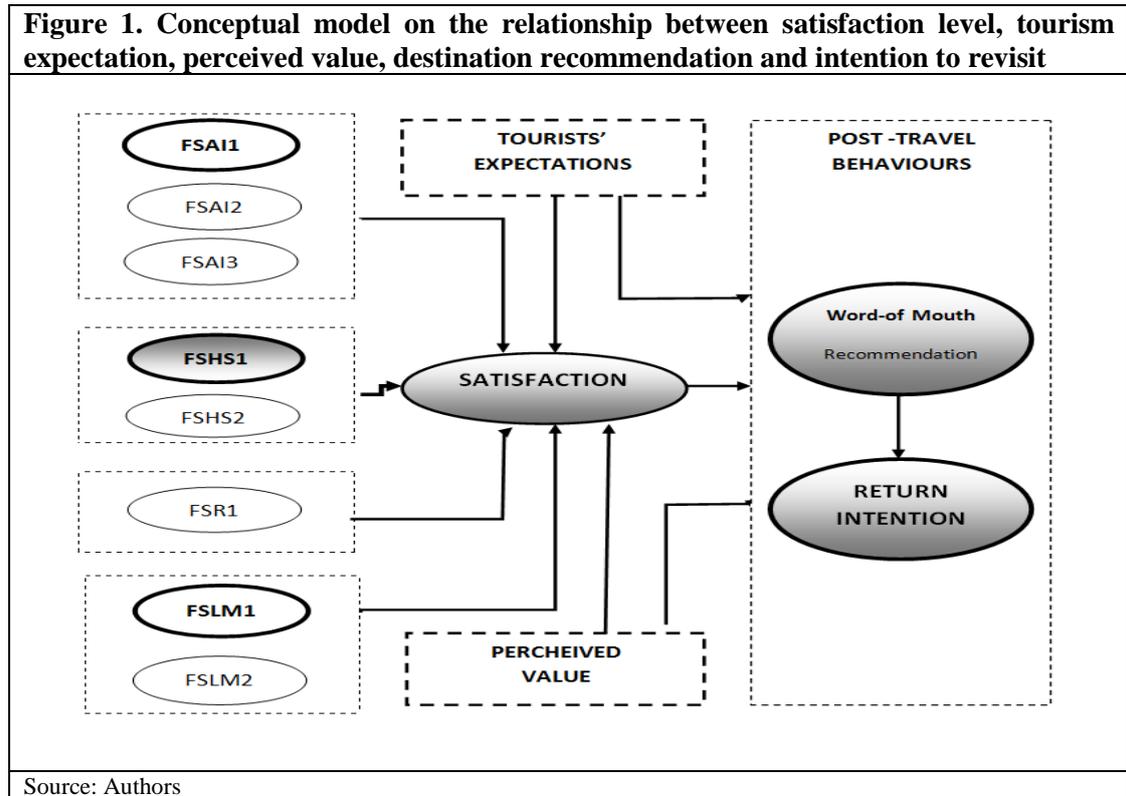
4. coefficient $\beta_0=0.19$: when factor FSHS1=0 and Q21 has been answered with "YES", then the likelihood that the participant replies "MAYBE" in Q20 is 0.19 times the likelihood that the participant replies "YES" in Q20.
5. coefficient $\beta_1=0.576$: when Q21 has been answered with "YES" and factor FSHS1 increases by 1 point, then the likelihood that the participant answers Q20 with "MAYBE" instead of "YES" is reduced by 42.4%.
6. coefficient $\beta_2=27.96$: when factor FSHS1=0 and Q21 has been answered with "MAYBE", then the likelihood that the participant answers Q20 with "MAYBE" instead of "YES" is 27.96 times higher.

According to the above it can be concluded that the more satisfied the tourist is with the accommodation services and the more the tourist recommends Chios as a destination to friends and acquaintances, the more likely it is that the above tourist will visit Chios again in the future.

Conclusions

The factor analysis used in 31 variables -classified into four categories- revealed eight important factors affecting the perceived satisfaction with the destination and consequently the post-purchase behaviour of tourists, with respect to their willingness to revisit or recommend (WoM) the destination. The above factors of satisfaction with the destination are: culture/events and gastronomy (FSAI1), public services and entertainment (FSAI2), infrastructure and cleanliness (FSAI3), hospitality services (FSHS1), staff behaviour (FSHS2), friendliness of local residents (FSR1), services in local market (FSLM1) and opening hours of shops (FSLM2). Similar conclusions were made also by Chi and Qu (2008), who examined the correlations between destination image, attribute satisfaction and destination loyalty (with the use of 33 variables) in order to calculate attribute satisfaction. After applying factor analysis they identified seven important factors: lodgings, attractions, shopping, dining and lodging, activities and events, accessibility and environment (which also include the friendliness of local residents). According to the researchers, the satisfaction with the above factors affects the overall satisfaction and consequently the destination loyalty (intention to revisit and recommend the destination).

In order to examine the factors affecting (to a statistically significant extent) the intention to revisit the destination this research introduced as independent variables the following: the satisfaction with individual sectors of the destination, the expectations of the visitors, the perceived value, and the willingness to recommend the destination. As indicated by the literature review and the statistical processing of the data, the above affect to a great extent the intention to revisit. Several previous studies have highlighted the correlation between satisfaction and the attributes of a destination (Chi and Qu, 2008; Serrato et al., 2010), the expectations prior to the visit and the perceived value (Lee, Yoon and Lee, 2007; Ramseook-Munhurrun, Seebaluck and Naidoo, 2015; Aliman et al., 2016), with tourists' behavioural intentions, such as recommendation and return intention. Based on the literature review and the research results of this research, the following conceptual model was created (Figure 1).



An interesting aspect of this research is that the prediction model proves that the perceived satisfaction with the accommodation services in combination with the intention to recommend the destination can lead to a positive effect and act as predictive factors for visitors' future behaviour with respect to revisiting the destination. As a result, the satisfaction with individual aspects of the hospitality sector is particularly important as to its affect and prediction of visitors' loyalty to the destination. This research makes clear that the satisfaction with the hospitality sector plays an essential role in achieving tourists' loyalty and especially willingness to revisit. An improvement in the tourism services could lead visitors to evaluating their accommodation at the destination positively and could boost their willingness to revisit the destination again in the future. The findings of the research would be worthwhile for destination managers but also for the destination's tourism enterprises in order for them to acknowledge the significance of qualitative services for the creation of loyal customers and to improve their services, thus increasing the satisfaction of visitors and strengthening their tourist experiences.

Managerial implications

Tourist destinations are faced with a constantly increasing competition. Consequently, destination managers need to understand the factors contributing to the satisfaction and loyalty of their tourists. For this purpose, the findings of this research have significant managerial implications for them. First of all, factor analysis revealed that satisfaction with destination attributes had eight underlying factors. Visitors were not equally satisfied with all of the above factors. Consequently, unsatisfactory or little satisfactory factors need to be identified and enhanced in order to improve the overall satisfaction of visitors. Secondly, as proven by the research, the satisfaction with the hospitality sector plays a crucial role in the intention to revisit. This practically means that a higher tourism satisfaction with the hospitality sector will lead to higher destination revisit (raising the number of repeaters). Therefore, tourism enterprises need to develop suitable products and services to meet the needs and demands of tourists in order to create positive post-purchase tourism behaviour and improve the destination's competitiveness and sustainability.

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EDMUND MALLINGUH¹, ZEMAN ZOLTAN² AND HABIL KECSKES³

INNOVATIVE FINANCIAL DIGITAL ECOSYSTEM: AN EVALUATIVE STUDY OF KENYA

Abstract

Technological dynamism is fundamentally changing digital transactions in Kenya. An ever-growing literature is examining how technology is specifically impacting on businesses in various regions, countries, industries among others. Developing countries like Kenya have been found to lack competitive advantage compared to those in Europe; partially due to lack of necessary but expensive technology. This paper reviews how digital innovations and strategic technological alliances affect business operations and financial inclusiveness. The innovative ways adopted by mobile operators to offer financial services has jerked financial institutions into action. Banks have come introduced PESALINK to lock mobile money operators out. One, the bank has decided to operate a mobile company through a subsidiary, specifically to reap from billion mobile money services. Despite the love-hate relationship between banks and mobile operator, theirs is a symbiotic relationship. The study uses secondary data obtained from relevant government agencies and various private sector players. This data was checked for accuracy before being used in the study. The study finds that Kenya has always endeavored at keeping abreast with global technological changes. However, the greatest revolution came when the country's mobile money innovative service, M-pesa, become an instant global success and case study. Since then, the trend has been continuous digital improvements to merge mobile and financial service. This has forced both businesses and government entities to re-evaluate their business models. The net effect is improved efficiency, connectivity and increased financial inclusion up to the remotest part of the country. Mobile and Agency banking has given the poor and those in remote places initially shunned by brick and motor financial institutions a 'bank' in their hands; accessible at a click of a button. Dynamism in technology equally means the government addresses need for relevant infrastructure, threats brought about by the same such as cybercafé-security and growing redundancy. Dynamism in technology equally means the government must continuously address need for relevant infrastructure, threats brought about by the same such as cybercafé-security, growing redundancy due to technology and provide an enabling regulatory environment.

Keywords: Innovation, financial inclusion, technology

JEL Codes: O30, O39

Introduction

Kenya is an emerging economy found in the Eastern Africa. The country has a population of forty-eight million, forty-two percent of this population is under the age of 15 years and literacy level is at 78 percent (KNBS, 2017). The huge generation 'Y' and 'Z' expects a rich digital experience, which is both mobile and social seamlessly integrating their financial needs with their digital lives. As generation Z grows up in the digital era financial and telecommunication entities will need to match their digital expectations. This group represents a highly important clientele segment as soon they will reach the peak age of financial and telecommunication service consumption. Fifty-five percent are in the age bracket of between fifteen to sixty-four years. Players in the financial and telecommunication sector that the paper will examine, must have these percentages as part business planning.

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The rise of social media and collaboration tools is empowering both customers and employees. Innovation in digital analytics and predictive models should, therefore, bring greater insight into customers' behavior and enable high relevant treatment strategies to be executed through digital modes (Doyle, 2014; Digital Banking). New channel integration technologies are enabling a more seamless end-to-end experience for business and their clients (New Digital Tipping Point, 2011). There has been a love-hate relationship between financial institutions and telecommunication companies in Kenya. This has been fueled by the continuous and innovative ways used by the mobile service providers to fill the gap left by incumbent financial institutions, raking in billions in terms of revenues. Traditional financial institutions feel the real threat of mobile money providers, although telecommunication companies will never replace banks. Does this spell doom?

Kenya being a developing economy has not embraced fully the fourth industrial revolution, given the fact that technology keeps evolving and is expensive. The fourth industrial revolution may be described as the current and developing environment in which disruptive technologies and trends such as the Internet of Things (IoT), robotics, virtual reality (VR) and artificial intelligence (AI) change our living and working ways. As such automation, machine learning, mobile computing, and artificial intelligence are no longer futuristic concepts, but a reality (Keywell, 2017). Van Doorn et al (2014) state that this is a stage characterized by so-called "Cyber-Physical Systems". These systems are a consequence of the widespread integration of production, sustainability, and customer-satisfaction forming the basis of intelligent network systems and processes. As Keywell (2017) further notes, new business services are now being developed based on the Internet of Things and services capacity to link the physical and virtual worlds. Schwab (2017) refers to the fourth industrial revolution as "cognification", characterized by fusion of technologies namely; physical, digital and biological.

This is an era of digitization, inhabited by both the digital natives of Generations Y and Z. Generation Y grew up with the constant presence of computers and with access to cable television channels; whereas, Generation Z enjoys high access to technology from birth and is more used to the long-term use of communication and media technologies such as the Internet, messaging and mobile. With time, these two demographic cohorts are likely to demand more access to advanced digital products and services. Generation X being increasingly digitally-savvy as well, then most of the people are expected to be technologically-adept in the foreseeable future.

Evolving customer expectations are spurring the need for innovative (financial) products and services. Advancements in smartphones applications are changing the face of financial transactions. Innovations are no longer a preserve of developed nations or firms alone. Bound and Thornton (2012) note how low-cost innovations sometimes called frugal innovations are increasingly being observed in developing nations (Gupta et al., 2003).

The banking industry, for example, is in a state of disruption. There are multiple technologies, demographic and regulatory factors across the value chain. Disruption and disintermediation are being caused by financial technological (Fintech) players. Kumar, Saxena, Suvarna, and Rawat (2016) note how these new entrants are targeting the most profitable aspects of the banking industry. They target banking aspects such as Personal Finance Management, Lending, Investment and Core Banking. Numerous service innovations that originated in developing countries have had a tremendous impact on the financial service landscape (Der Boor, 2014). Examples of technological innovation from emerging economies include Near Field Communication, software functionalities that integrate mobile "wallets" with bank accounts (Sadeh, 2003); M-Pesa innovation is one of the most successful implementations of a mobile money service (Jack and Suri, 2011). As digital transformation strongly accelerates, banks must keep reinventing themselves.

Godoe (2000) points out how the telecommunications industry has been known for its fast-technological progress. Mobile technology, through its implied simplicity, transparency, autonomy, immediacy, and personalization, is one of the main transformation driver disrupting the retail banking industry. Duncombe and Boateng (2009) state that currently, telecommunication (innovations) is the most rapidly growing technology in the developing nations like Kenya. Promising growth opportunities exist across information and communications technology industry. Machine to machine connections (M2M) are forecast to reach a billion by 2020, representing 10% of all mobile connections as the Internet of Things (IoT) takes shape, while enterprises adopt cloud services in ever bigger numbers (GSMA, 2016).

Finally, digital innovations have been lauded globally. In the Kenyan context, changes in technology have brought about both opportunities and challenges in equal measure. Changes in business models and embracement technology are inevitable. Partnerships between the telecommunication and financial sectors is now a norm and expected to remain so.

Materials and methods

Literature review

Today's dynamic technology is fast changing how businesses model their operations. Digital technology is equally cutting across developing economies such as those in Asia and Africa. Traditional banking faces the steepest challenge in over a generation, and a new tipping point reached with digital at its fulcrum. PwC (2011) surveyed approximately 3000 banking customers in nine different markets (Canada, UAE, France, Poland, Mexico, India, Hong Kong, China and the United Kingdom) to evaluate clients' needs, attitudes and behaviors to digital media. The survey comes with three important findings pertaining to others. One digitally is vital in addressing the ever-changing behavior of clients; two, customers tend to value new digital menu and; three, new digital entrants (who's not core business is not banking) are disrupting banking industry ecosystem.

Barquin, Vinayak, and Yip (2015) analyzed digital banking in the Association of Southeast Asian Nations (ASEAN); they focused on consumer sophistication and openness. They sampled 4700 respondents during the study period. The study finds the existence of enough growth opportunities available for banks that embrace digital technology.

The cyber threat is no longer a common phenomenon in emerging but mature economies as well. Financial Industry Cybersecurity Report (2016) on the United States shows that a Commercial bank with the lowest security posture is one of the top 10 largest financial service organizations by revenue; 75% of the top 20 U.S. commercial banks by revenue are infected with malware; Nearly 1 out of 5 financial entities had an email service provider with severe security vulnerabilities. Similarly, a study by the Depository Trust & Clearing Corporation revealed that 46 percent of financial sector firms named cybersecurity as their top concern nearly double their response from the prior year (Reeve, 2015).

Enabling regulation of both financial and telecommunication is desirable. According to GSMA (2016), 52 out of 92 countries with mobile money services had an enabling regulatory approach. Sub-Saharan African regulators have been very progressive in this regard: most of the markets with live mobile money services in this region have enabling regulation. The Central Bank of West African States in 2006, became one of the first regulators globally to allow the issuance of e-money by non-bank providers. The regulatory framework was later improved to bring about financial inclusion, stability, and integrity.

Muthiora (2015) notes that however, East African regulators took a different journey. Regulators in Kenya and Tanzania encouraged innovation and growth but maintained the soundness of the financial sector, monitoring mobile money services closely before introducing appropriate regulatory frameworks

(Di Castri and Gidvani, 2014). Naghavi, Shulist, Cole, Kendall, and Xiong (2016) study found total mobile money transaction value was 5.4 percentage points higher in markets with enabling regulation, as compared to countries with non-enabling frameworks.

Banks have been feeling the heat when it comes to regulation of non-financial players in the market. Globally, banks own access to bulk payments, automated teller machines and charge others for the use of these facilities thus reducing completion. However, a combination of regulation and technology is quickly changing the status quo (Banking Disrupted, 2014). Regulators are equally making it extremely difficult for financial institutions to reap benefits attributable to ownership of payment options as a barrier to entry in the industry. In addition, non-bank or financial players can obtain a banking license to offer narrowly defined transactions as such gaining a share of the market.

On mobile usage for financial transactions, in 2016, 45 percent of mobile money service providers were connected to at least one bank. Between 2015 to June 2016, mobile money-to-bank account transactions increased by more than 120 percent amongst Global Adoption Survey respondents. Allowing mobile money users to transact directly with bank accounts led to a greater diversity of use cases and increased access to other sources of funds for mobile money users. In Pakistan, for example, the value of mobile money-to-bank transfers and vice versa more than tripled between 2014 and 2015. This increase in transactions reflects the participation of mobile money operators in the 1LINK switch (GSMA, 2016).

Financial transactions using mobile money began in early 2000. A total of six services providers had launched operations in four countries, primarily in the East Asia and Pacific region by 2006. Customer activity in the early days was limited in these markets. In 2006, just 8.8 percent of the 6.6 million registered mobile money accounts globally were active, that is transacted at least once in every 90 days. However, it was the launch of M-Pesa in Kenya in 2007, and the sudden and rapid growth, that the potential of mobile money to transform lives became clear (GSMA, 2016). Digitizing government-to-person (G2P) payments bring greater savings for governments by reducing the security and handling costs associated with paying people in cash. In Niger, using mobile money for a government transfer program reduced administration costs by 20 percent over just one year (Aker,2012) In Liberia, using mobile money by government for payments provided net benefits of more than US\$ 22.5 million per year, due to productivity gains and cost savings from government travel (Hassel back, 2015).

Gupta et al. (2015) analyzed customer's perception of the use of technology for financial products and services delivery by Public Sector Banks (PSBs) in India. The study shows that public sector banks need to understand factors influencing the perception of a customer; this allows them to add greater value to customers by delivering financial products and services through innovative delivery channels. Adoption of information is a global phenomenon. Vimal (2015) study of the Indian banking industry notes; digital technology is important in banking today forcing banks to realize its impact on operational performance to justify capital investments. The findings show how Information Technology resulted in increased customer satisfaction, improved operational efficiency, reduced transaction time, better competitive edge, reduced the running cost and swift service delivery. Deloitte (2014) surveyed how technology is disrupting traditional retail banking model in Europe. The survey finds that the real threat to banks is not about non-banks imitating universal banking model but rather their ability to innovate around it to grow their own core business.

Some digital challenges aspects

Globally, various trends initially developed and witnessed in the technology sector, are now cascading down to other industries and sectors. Both the telecommunication and financial industries analyzed in this article face different challenges. Rapidly changing technology trends in the financial sector, have brought about evolution and disruption of information technology capabilities, business operations, and

business models. Banks must be aware of the evolution of society and its impact on the way people are banking (New Digital Tipping Point, 2011). These institutions must adapt to the digital changes and new expectations; most of them, however, do find it difficult solving all these challenges at the same time. Mobile companies have embraced innovation as part of their business DNA; on the flipside, traditional financial institutions are now aware that open innovation ecosystems are the genesis of design and delivery in the digital era (Banking Transformation Road Map, 2014).

Some of these challenges are illustrated below;

- **Emerging players**

Several new entrants are competing for inclusion in the banking value chain. Several them are or will be successful in securing their position as part of the banking ecosystem. Technologically-enabled non-bank players, referred to us FinTech are upscaling their capabilities significantly. These entrants are stronger today and cannot be wished away. FinTech players may be divided into two broad categories: Enablers and Disrupters (Doyle, 2014; Digital Banking). Enablers support incumbent financial institutions by providing digital solutions for existing products through their strength in technology-driven software, platform, and infrastructure. They focus on enhancement rather than product or solution specific augmentation. Disrupter, in turn, are companies changing the dynamics of how businesses are executed, emphasizing strong differentiation by offerings or revolutionary business concepts. They are usually focused on delivering specific products or solutions, with the potential (danger) of disintermediating incumbent financial institutions in the process.

Players in emerging markets that have a large percentage of unbanked, or under-banked consumers are likely to experience a greater threat from new players (New Digital Tipping Point, 2011). This is also the case for telecommunication companies that are intent on having a share in the electronic or digital commerce in Kenya. Defenders' are technically incumbents that have traditionally had a grip on their market segments whether in the banking or telecommunication value chain. Most of these players aspire to adopt the digital innovator space, but few are equipped to do so. 'Attackers' the new entrants try wresting away a market share from the incumbents by intermediating themselves into the value chain. These may be established players in technology and mobile as well as smaller and start-ups.

Financial institutions like banks in Kenya, branch banking is undergoing a significant transformation. With technology enabling every aspect of banking to go online, and a decline in hard cash usage, tradition branches are no longer necessary. These physical branches have high-fixed cost becoming dramatically more unproductive (Retail Banking 2020, 2014). The digital shift is a cultural one requiring new skills to meet the needs of digitalized customers.

Kenyan market is awash with technological innovators all angling to have a piece of the financial sector. They range from betting firms, Agency players and mobile application entrepreneurs among others.

- **Governments influence through regulation**

Dynamism in technology means the governments must regularly review existing laws. For example, banks are increasingly being pressured on various social responsibility issues, such as fees, affordable housing, and anti-money laundering (Retail Banking 2020, 2014). In Kenya, the Banking Act, Banking (Amendment) Bill 2015 become law marking a new era for the banking industry. The new amendments cap banks' lending interest rates to no more than four percent above the Central Bank Rate. The law was because of customer exploitation by banks and currently, there is a debate to scrap it altogether.

Technological and operational innovation has been crucial to the mobile money evolution. The role played by regulatory innovation has however often been overlooked. Initially, the idea of a ‘test-and learn’ approach to the regulation of financial services was viewed as both bold and risky; so was of a functional approach to regulation, in which non-banks could be licensed to provide payment services, or the ability to delegate account opening and cash-in and out functions to agents (GSMA, 2016). Di Castri (2013) demonstrates how these are growing and emerging market norms today. Allowing non banks or other players engage in mobile money is a necessary step toward greater financial inclusion.

However, regulatory barriers persist in some markets where regulatory barriers hinder the emergence of mobile money services. A conducive regulatory framework encourages competition and innovation, attracting investments from both banks and non-banks, and allows providers to focus on operational efficiency and ultimately accelerating financial inclusion (GSMA, 2016).

In Kenya, the government through its various entities is continuously reviewing and formulating digital policies pertaining to digital or E-commerce. This is meant to safeguard customers and minimizes money laundering among other. The Central bank and Communications Authority of Kenya are key players in regulating the industry. The government has capped mobile money transfer at K.sh 140,000 a day and for the Agency banking at US\$0.10 – US\$ 9,650.

- **Cyber risk threat**

Cybersecurity departments for major financial organizations stare at growing challenges. Threats from cybercrime continue to increase. Many financial organizations or transactions depend on sound Information Technology systems that are expensive to acquire or maintain, prone to more unpatched vulnerabilities and the general challenges of software integration and architecture upgrading more so when mergers and acquisitions are in place (Financial Industry Cybersecurity Report, 2016). Apart from protecting data, such as customer records, clearing and trading information, or confidential documents, organizations engaged in financial transactions, have the enormous challenge of safeguarding their systems and networks as well as the financial assets they hold. Cyber attacks have disastrous economic consequences beyond the financial, reputational, and legal ramifications for an individual entity. A security breach at a few financial entities could pose a substantial danger to market confidence and the nation’s financial stability (Combating the Biggest Cyber Threats to the Financial Services Industry, 2015).

Cyber threats fall into different categories and a few will be highlighted. One, Denial of Service Attacks which is an attempt intended to compromise the availability of networks and systems. These attacks flood a network with phony connection requests, making it impossible to process legitimate user requests. Two, Mobile Banking Breaches where customers demand greater mobile banking capability, is opening financial institutions up to cyber threats. Cybercriminals exploit the vulnerabilities in mobile technology gaining access to a user’s credentials and account information. Three, Payment Card Skimming where a skimmer is fitted to the outside or inside of an Automated Teller Machine enabling collection of card numbers and personal identification number (PIN) codes criminally. The stolen information may be sold or used to make fake cards to withdraw money from the compromised accounts. Four, Advanced Persistent Threats which use undetected, continuous computer hacking programs to gain access to a high-value organization’s network. When the unauthorized access is achieved, it’s often undetected for a long period of time quietly stealing data, committing fraud, destroying an institution’s economic stability or undermining its reputation (Combating the Biggest Cyber Threats to the Financial Services Industry, 2015).

The cyber threat is real in Kenya, however, so as not to erode investors or customers confidence in the countries financial sector or stock markets; the government and industry players tend to be guarded with such information.

Methodology

The paper uses secondary data obtained from relevant public and private agencies in the Kenya. The paper examines two industries; the mobile and banking industries, as such data from Central Bank and Communications Authority of Kenya, was heavily relied on. The paper considered only those entities legally licensed to operate cellular and banking services in the country. The paper examined data available up to 31 December 2016 for the banking industry and 30 June 2017 for the mobile industry. Microfinance institutions were not considered as part of the banking industry in the paper.

Results and discussions

An analysis of the mobile money and banking industry in Kenyan context

Banks in different regions like Kenya have varying digital capabilities and maturity of banking solutions. Different local financial institutions need to adopt different digital strategies to stay remain competitive. Two major approaches may be used to address the changes in digital adoption of the banking business: Digital Inside-Out and Digital Outside-In strategies (Chauhan et.al 2014).

Telecommunication industry

Mobile phones were introduced in Kenya in early 2000 where ownership was limited to a few considered rich and in urban places then. Mobile ownership numbers have grown significantly since then. The country mobile subscription has hit 42.259 million as at the end of June 2017 (CA, 2017). This is figure surpasses those who hold bank accounts in the country. Mobile operators have continuously developed innovative products. One such product deals with financial transactions, which is at the center of this paper. Some of these innovative products are discussed below;

- **Mobile money**

Mobile money has been around for more than ten years; however, few would dispute that the 2007 launch of M-Pesa in Kenya proved the potential of cellular technology to transform access to financial services in emerging markets. Mobile money services allow deposit and withdraw money, transfer money to other users, insurance/utility payments, purchase airtime and transfer money between the mobile and a bank account.

The continuous investment and innovation have changed traditional ideas about financial services. Ten years after the launch of M-Pesa, growth has been explosive from the start; there were 20,000 active users in the first month and one million active users eight months later. In 2015, M-Pesa revenue accounted for more than 20 percent of the company's total revenue (Safaricom, 2017). Safaricom being the most profitable company in East and Central Africa is the single biggest corporate taxpayer in the country. In the year FY 2016, the company had a pretax profit of Ksh 84.91 billion with M-Pesa, the company's mobile money platform raked in Ksh 19.35 billion (Safaricom, 2017). The revenue attributable to mobile money transfer exceed the pretax profit of any single bank in the country, more so after the introduction of interest rate cap.

The Kenyan mobile money success was a catalyst for other countries. GSMA (2016) report indicates that mobile money is available in two thirds of the low and middle-income countries; more than 40

percent of the adult population in Kenya, Tanzania, Zimbabwe, Ghana, Uganda, Paraguay, Gabon and Namibia use mobile money, an increase as only Kenya and Uganda had the service in 2015. Take-off was initial at a slow pace in some countries (Mas and Radcliffe, 2010). People in developing countries relied on risky and informal methods of money transfer before the introduction of mobile money. Cellular service providers seized the opportunity to leverage mobile technology to reach millions of financially excluded people in the early 2000's. Mobile money transfer service allows one to send and receive money through their mobile phones; the money can access via the agent or ATM. The success of M-Pesa in the country attracted other players in the Kenyan economy to venture in mobile money services as shown in the tables and diagrams below.

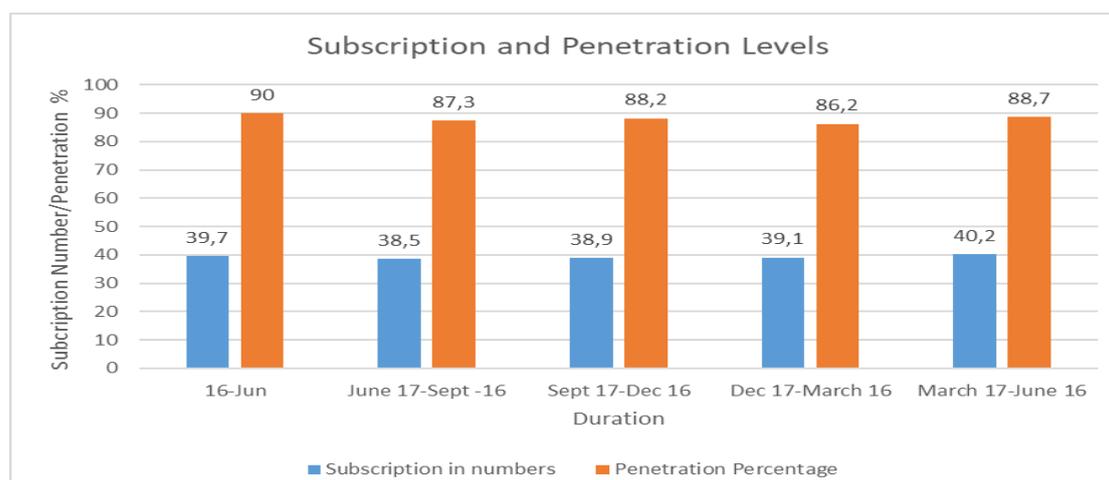
Mobile money has several benefits in any given economy. One, there is greater personal safety and security. In a society that uses less cash, the rate of crime goes down and the sense of personal security goes up (The Economist, April 2014). Two, it leads to more time and fewer costs. Digitalization of government payments saves both time and costs. In Pakistan for example, passport application payments via mobile money minimized a day's wait to a matter of minutes (Aker, Boumniel, McClelland & Tierney, 2012). In Niger, recipients of a social protection program receiving disbursements via mobile money incurred significantly fewer costs than those who received them in cash (USAID & mSTAR, 2016). Teachers in rural Nimba County in northern Liberia, receiving salary payments via mobile money saved the time spent away from classrooms traveling to collect their salaries, and reduced the costs of receiving their salaries. Three, new sources of income because of digital transactions becoming more routine. Mobile money has brought new opportunities for entrepreneurs in emerging markets. Mobile money agency opportunities have been created, in addition to airtime selling; the net gain in new income sources is sizeable, and the percentage of commissions paid by mobile operators to agents stood at 54 percent in 2015. As at 2016, the number of active agents stood to 2.3 million globally; marked growth in agency activity in regions such as South Asia and East Asia and Pacific was noted. Agency has helped in ensuring that local businesses and entrepreneurs are supported by the mobile money ecosystem (GSMA, 2016).

In Kenya where mobile money become a success, private and public entities have embraced its use. It is an accepted mode of payment and recently as is the case in Niger, those on government social protection easily get money without going to a bank. Mobile money has revolutionized business transactions in the country. Initially, there was much resistance by traditional financial institutions on the issuance of a license to mobile providers to engage in financial transactions by traditional banks. The current trends are a mutual benefit between mobile money providers and other players such as banks. Currently, the market leader in money transfer services is in more than twenty countries spread across Asia, Europe and Africa.

Analysis of some aspects of mobile operators

Cellular subscription

Figure 1. Mobile subscriptions and penetration rate



Source: Operators' returns (Source; CA, 2017).

Mobile market share per operator

Table 1 below shows that between March and June 2017, all mobile service providers registered a growth in their subscription numbers other than Airtel Network limited and Sema Mobile limited. The drop-in numbers were insignificant as generally subscription during the quarter went up by 2.8 percentage points.

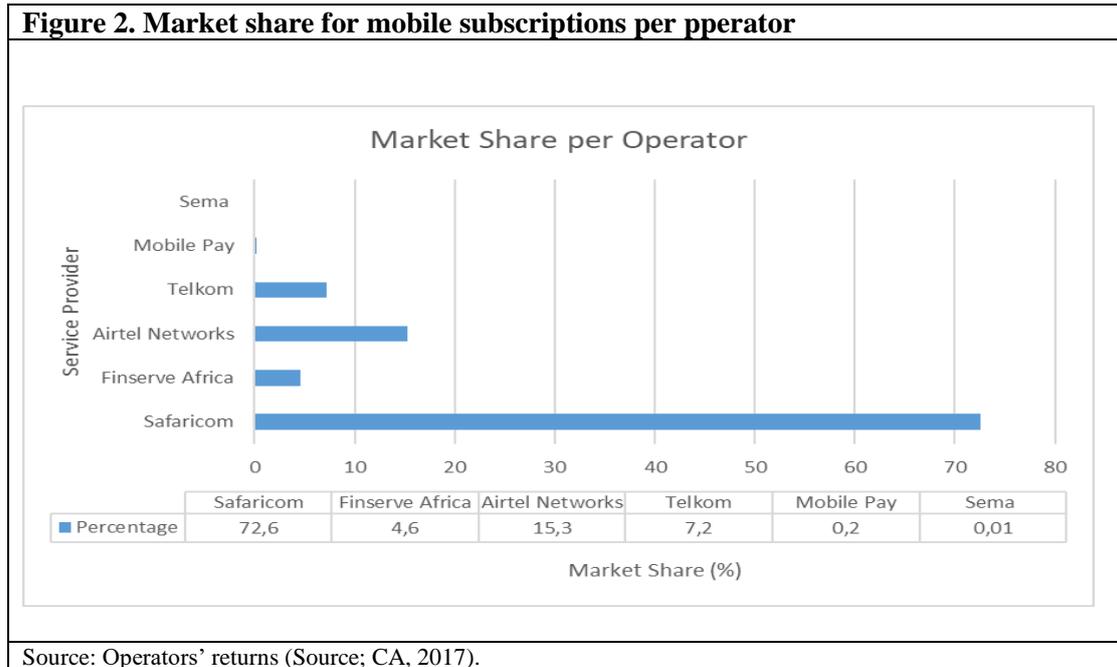
Mobile market share per operator

Table 1. Mobile subscription per operator

Name of operator	June-17			March-17			Quarterly Variance (%)
	Prepaid	Postpaid	Total	Prepaid	Postpaid	Total	
<i>Safaricom</i>	28,155,068	1,073,828	29,228,896	27,099,918	1,033,670	28,133,588	3.9
<i>Airtel Networks</i>	6,037,020	142,162	6,179,182	6,255,020	138,658	6,393,678	-3.4
<i>Finserve Africa</i>	1,864,838	0	1,864,838	1,727,270	0	1,727,270	8.0
<i>Telkom Kenya</i>	2,889,756	8,755	2,898,511	2,795,762	8,747	2,804,059	3.4
<i>Sema Mobile</i>	263	0	263	295	0	259	-10.8
<i>Mobile Pay</i>	87,756	0	87,756	86,724	0	86,724	1.2
Total	39,034,731	1,224,745	40,259,476	37,964,476	1,181,075	39,146,064	2.8

Source: Operators' returns (Source; CA, 2017).

Figure 2 below outlines the markets share per service provider as the end of June 2017. Safaricom is the dominant player commanding 72.6 percent of the market followed by Airtel Networks limited that lost 1.0 percentage point to have its share stand at 15.3 percent. The other players had a market share of below 10 percent, however, Finserve Africa continued to witness growth as its market control was 4.6 percent.

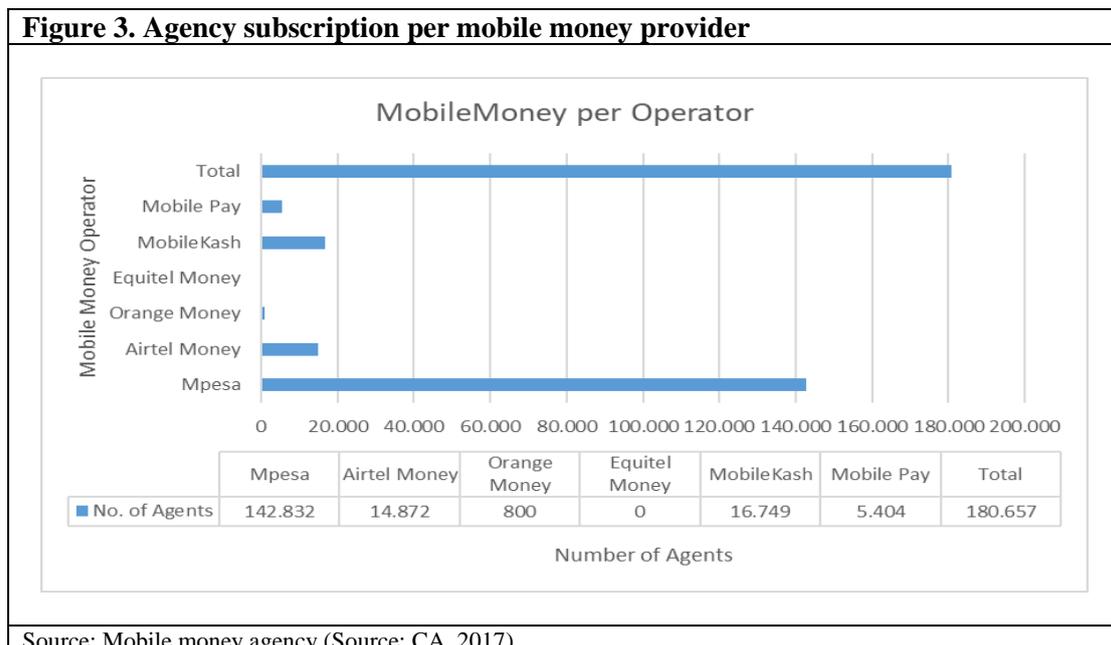


The above table and figure show that the country is served by that the country is served by six cellular mobile operators. Safaricom is the dominant player with a market command of 72.6 percent, partially explains why the company is the most profitable in the region; whereas Airtel comes a distant second with 15.3 percent. Banks and microfinance institutions have partnered with the company due to its countrywide reach and a high number of subscribers.

Mobile money transfer and mobile commerce services

Figures 3 and table 2 below show the various mobile money operators operating in the country, the agents recruited under them and level of mobile commerce. By end of June 2017, active mobile money subscriptions were 28.0 million while the number of registered agents stood at 180,657. A total of 480.5 million transactions, both withdrawals and deposits valued at 1.2 trillion Kenya shillings were carried out during the fourth quarter. Further, goods and services bought over mobile platform amounted to 692.1 billion Kenya shillings, involving 316.5 million mobile commerce transactions whereas person to person transfers were 541.8 billion Kenya Shillings (CA, 2017).

Figure 3. Agency subscription per mobile money provider



Source: Mobile money agency (Source; CA, 2017)

Table 2. Mobile transactions by service providers

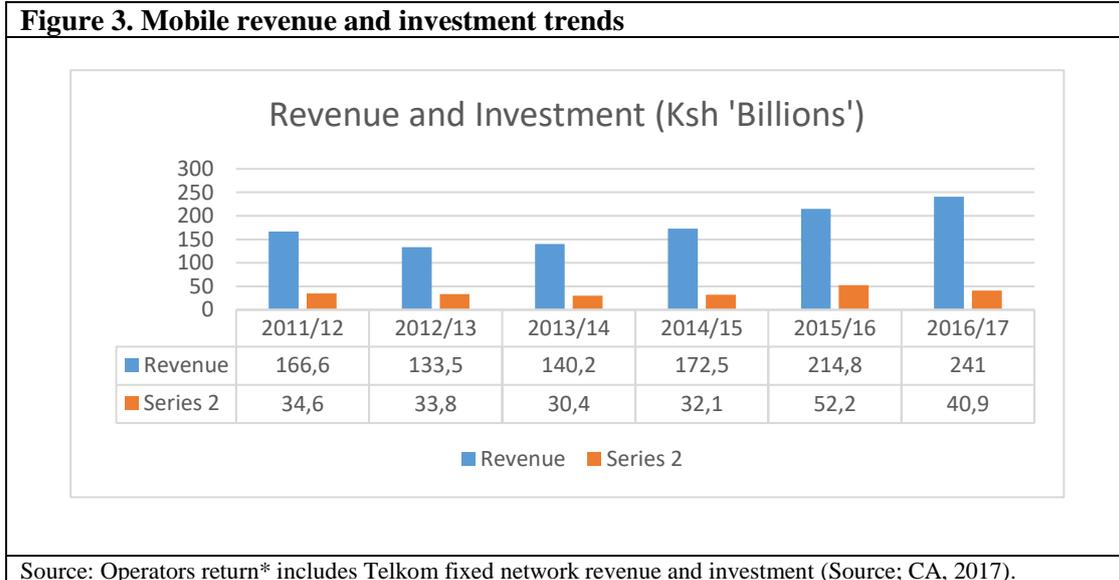
Service	Mobile commerce transactions	Value of Mobile commerce	Person to Person Transactions	Value of Transactions
Mpesa	273.288.881	461.823.160.232	447.666.109.008	903.637.032.067
Airtel	2.622.863	2.275.244.137	869.489.346	1.200.124.975
Orange	221	51.881	2.025.405	85.270.00
Equite	0	1.864.838	97.158.440	311.817.417.433
Mobikash	6.430	9.227.168	22.876.608	127.032.829
Mobile pay	0	0	757.982.401	1.450.485.349
Total	316.529.626	692.155.683.418	541.868.743.949	1.218.317.362.653

Source: Value of operator's mobile transactions (Source: CA, 2017).

The continuous increase in the value of transactions demonstrates how the populace is embracing technology as a payment platform. Mobile money has brought about increased financial inclusivity in the country.

Mobile revenue and investments

Mobile revenue stood at K.sh241.0 billion whereas Investment was K.sh40.9 billion during the FY 2016/17 as illustrated below:



Mobile telephony service providers registered generally a growth in revenues between 2011/12 to 2016/17 as shown in the table above. Part the reason for the growth is increasing revenue streams from mobile money service. Investment by the service provider has been fluctuating but a positive increase can be witnessed from 2014/15 to 2016/17 financial year; most attributed to embracing new technology like a shift from 3G to 4G, improving on cyber threats among others. Mobile operators continue to provide innovative products, and this explains the growing investment. The return on investment is significantly higher.

Banking industry

Analysis of some aspects of the Kenyan banking industry

As at 31st December 2016, the Kenyan banking sector comprised of 43 banking institutions; 42 commercial banks and 1 mortgage finance company; whereas the number of deposit account holders stood at 41,203,518, this is less than mobile subscribers.

- **Commercial banks market analysis**

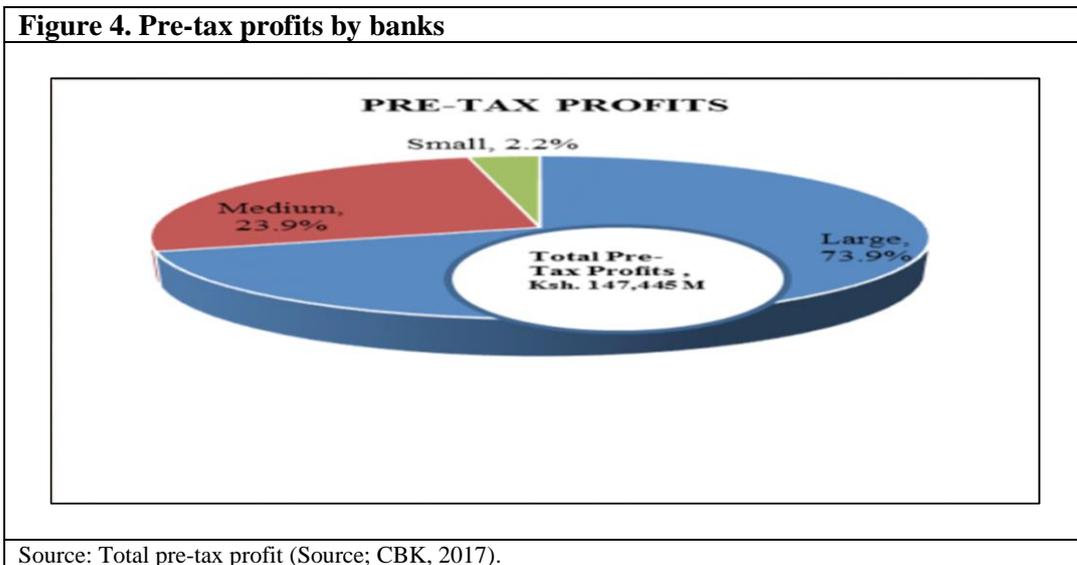
Total profitability for the entire banking industry as at 31 December 2016 stood at K.sh 145,445 Million. Kenyan commercial banks are classified into three peer groups using a weighted composite index comprising of net assets, customer deposits, capital and reserves, number of deposit accounts and number of loan accounts. A bank with a weighted composite index of 5 percent and above is classified as a large bank. A medium-sized bank has a weighted composite index of between 1 and 5 percent while a small bank has a weighted composite index of less than 1 percent. For the period ended 31st December 2016, there were 8 large banks commanding a market share of 65.32 percent, 11 medium banks with a market share of 25.90 percent and 20 small banks with a market share of 8.77 percent (CBK, 2017). In terms of profitability, commercial banks got most of the profits as shown in figure 4 below.

On Information, Communication and Technology Risk Management and Controls; increased use of ICT has also increased cases of ICT related frauds in the recent years. Data on fraud reported to Banking Fraud and Investigation Department (BFID) shows that cases relating to computer, mobile, and internet banking are on the rise. Another emerging threat is cyber-crime where criminals are gaining

unauthorized access to institutions' computer programs and data. No bank, however, changed its core banking system under the year of review (CBK, 2017).

- **Innovative payment systems platform**

Towards the end of 2016, several commercial banks submitted applications to CBK to introduce a payment system product the market called PESALINK. The product offers a secure and efficient platform for a bank account to bank account money transfer. The platform is managed by Kenya Bankers Association (KBA) through its subsidiary; Integrated Payment Services Limited (IPSL). The Platform complements existing payment system infrastructure and provides customers with more choices.



Banks will have to be more innovative to increase their revenue streams. The interest cap has dented the prospects of high profits in future from loans given out. Banks must find innovative ways of roping in more customers and offer attractive terms.

On Agency, banks have replicated the mobile money operators' strategy. Value of transactions via Agency Banking continues to grow. The value through agency is slightly over a third of what mobile operators transferred, this is expected to increase in future as more people embrace the concept of agency banking. In the table 3, payment of pension and social services has grown tremendously to stand at 1240 percent; technology has seen the government and others social security payments reach retirees and those disadvantaged across the country without going to government offices. All services offered by banks through agency has grown consistently within the two years apart from payment of bills that registered a decline of 37 percent. The reduction in bill payment may be because of mobile money eating into the banks share. Mobile money operators continue to make the process bill payments easier and of very small amounts that banking agency may not readily accept. Banks are expected through technology to try and reclaim the lost market share.

Table 3. Agency banking data for banks – value of transactions in KShs ‘millions’

Type of Transactions	2016	2015	% Change	Cumulative (2010-2016)
Cash Deposits	538.273,37	298.383,53	80%	1.340.339,20
Cash Withdrawals	175.242,59	133.204,42	32%	549.620,20
Payment of Bills	5.996,91	9.478,40	-37%	19.539,71
Payment of Retirement and Social Benefits	14.492,88	1081,25	1240%	19.056,83
Transfer Funds	176,21	83,77	110%	329,78
Total	734.181,99	442.231,36	66%	1.928.885,75

Source: Agency banking data (CBK,2017).

Digital challenge response in Kenya

i. Innovative products

The rate at which technology is evolving, transaction banks need to constantly invest in their digital agenda. Banks in different geographical areas possess varying digital prowess and maturity of transaction banking solutions. This requires them to adopt different digital strategies (PwC, 2014). Competitiveness of today’s business world calls for a paradigm shift in the way business is done. “Business, industries, and corporations will face continuous Darwinian pressure and as such the philosophy of ‘always, beta’ (always evolving) will become more prevalent (Schwab, 2017). Banks need to acquire or have alliances with innovators to act as drivers of change; for those that accept change by developing their capabilities alone, this may be expensive and risky.

Financial institutions in Kenya can no longer afford to ignore the power of mobile money. Banks have endeavored to better their products but in some case partnered with the mobile money service providers in a win-win situation. Some of these innovative products and services are demonstrated illustrated below;

- **PesaLink**

Banks have gained traction in the mobile financial services through interoperability method introduced by the Kenya Banker’s Association (KBA) which has 40-member institutions. The service was rolled out earlier this year, 2017. Currently, at least 30 institutions participate in the scheme. The service is a real-time payments system that allows account holders transfer amounts of US\$0.10 – US\$ 9,650 between institutions (KBA, 2017). Although KBA conceived the initiative, Integrated Payment Systems Limited, a bank owned entity, manages the uniformly branded scheme and operates the payments switch that supports the transactions. Transactions can be initiated from five main bank channels namely; Automated Teller Machine, Point of Sale, Internet, Mobile banking, Agency banking and Front office. PESALINK, enables bank customers to move funds from one bank to another using either mobile phones, internet, ATM, bank agents, and branches. The product reduces the cost of transferring funds from one bank to another since the charges levied are lower than those currently being charged by existing money transfer platforms.

Technology has brought about efficiency and reduced cost of doing business. In Kenya, financial institutions are embracing latest global banking technology, and this has resulted in massive redundancy. Digital branches are being preferred as opposed to brick and mortar ones. Banks are already reducing staff levels, closing the most uneconomic branches and experimenting with new branch concept. The first report on the performance of PesaLink is expected at the end of the year 2017 when the CBK publishes its Annual Banking Supervision Report.

- **Equitel money**

Equity bank embraced a Digital Outside-In approach as a financial institution exploring externally driven innovations in efforts to augment its digital capabilities. It adopted financial institution-led venture capital, focusing on digital financial services investment through mobile and online startup. Being Kenya's and East and Central Africa biggest bank by depositors and profit, Equity bank launched a mobile company in 2016. Equitel, operated by Finserve Africa, the bank's subsidiary; the mobile virtual network operator (MVNO) combines both banking and telecoms services such as voice, data, and SMS on a single SIM card. The thin SIM is mountable on the mother SIM and both work simultaneously (CA, 2017). Such a business model is bound to give it a competitive advantage over its rivals. The innovations were meant to diversify its revenue streams in a competitive world. The service allows one to access most banking services through the mobile, offer all cellular mobile services and mobile money services among others. The Equity Bank Kenya Limited has a customer base more than 9.2 million in the six Eastern and Central African countries where it has a presence; making it one of the largest commercial banks on the African continent, by customer numbers. The SIM card is offered for free to any Equity Bank customer. Another advantage is that the company minimizes revenues shared with customers using rival mobile operators to access chargeable bank service. The company partnered with Airtel, a mobile operator to use its infrastructure rather than put up its own which is an expensive venture. Its customer base is expected to grow once it finds ways of operating its mobile network in all countries it has a presence in.

The bank's innovation and digitization strategy resulted in 91percent of all transactions moving from the fixed cost delivery channels of brick and mortar of bank branches and ATMs to variable cost delivery channels of mobile, internet, mobile, Agency and merchant banking. In 2016, of the total 341.3 million monetary transactions, only 30.3 million transactions were through the branches and ATMs while the rest of the transactions passed through the third-party channels. The shift in delivery modes resulted in a reduction of 11percent in staff costs. Digitization of diaspora banking platform saw an increase in remittances by 54 percent from Kshs. 9.6 to Kshs 14.8 billion for the year 2016. Mobile innovation Equitel saw the Group capture 25.6 percent of the value of national money transfer in Kenya and 33percent of the national market share of Mobile Commerce (Equity, 2017).

- ii. **Strategic partnerships and alliances**

- **Agency banking**

By end of 2016, 18 commercial banks and 5 microfinance banks had contracted 53,833 and 2,068 agents, respectively across the country. Whereas at the end of 2015, the number of agents contracted for banks and MFBs stood at 40,592 and 1,154 respectively; a 33 percent (increased by 13,241 agents) and 79 percent (increased by 914 agents) growth of number of agents contracted by commercial banks and microfinance banks, respectively (CBK, 2017). The increase in the number of agents is attributed to the increasing confidence and acceptability of the agency banking model by the public and banks as an alternative channel of doing banking business. A customer only needs identification documents and the ATM card when visiting the agent. The transactions performed by the agent are real time. Most of the functions offered by the bank and payment of utility bills are available at the agency. For, example

Barclays Kenya has partnered with the Postal Corporation of Kenya to carry out Agency functions on its behalf.

Mobile money transfer services as indicated in the table above had a total of 180,657 agents. This is a big number given that the country has only six mobile operators. This demonstrates how mobile money continues to bring about financial inclusivity. Agency banking, mobile money, and digital platforms are forcing banks to cut down on the number of physical branches. Over the last one year, banks in Kenya are closing unprofitable branches as they follow customers on the digital platform.

- **Mobile, bank and FinTech**

During the year 2016, over 70 applications seeking CBK's approval to introduce new products related charges were submitted by banks. Most of the applications sought to introduce mobile phone banking services in partnerships with IT service providers. This facilitates inquiries on accounts as well as enable customers to conduct banking transactions such as cash withdrawals/deposits, account opening, loan applications and payment of goods and services online. Towards the end of 2016, 15 banks had applied to introduce PesaLink service (CBK, 2017).

The players in the three different sectors may consider some collective initiatives. High cost of building and overheads associated with physical bank branches has been a major huddle for extending financial services to the poor more so in rural. Brick and mortar bank branches are expensive to maintain in remote area and movement to and from urban areas is costly for many rural based customers. The players continuously embracing but not limited to; Digital Person-to-Government (P2G) Payments, merchant payments, interoperability allowing the poor to transact across financial service networks among others.

For example, Commercial bank of Africa partnered with Safaricom to introduce M-shwari. M-shwari is a banking platform that allows clients to save, earn interest, and access small amounts of credit instantly through their mobile phones numbers. Loan amounts depend the duration M-shwari usage, loan repay ability and the client's saving culture on M-Shwari accounts. The service allows mobile holders both customers and non-customers of the bank to access loans of various amounts from less than to over ten thousand dollars repayable between one to six months. The partnership has seen the bank tremendously increase its clientele. A similar product was introduced between Kenya Commercial bank and Safaricom; Equity bank on its part, in addition, to have partnered with mobile service providers to give loans, introduced its own mobile service where customers can get loans.

Further, mobile operators have partnered with several entities to offer payment solutions. Most organizations and enterprises have Pay Bill or Till Numbers where one can pay for goods and services conveniently. A person can easily deposit or withdrawal money in an account using a mobile phone or do payments without handling hard cash. Mobile money has offered the unbanked an opportunity to own and move around with a bank account. So long as one signs up for mobile money service using a phone, then he or she can save money on the phone. Finally, the cost efficiencies and commercial growth facilitated by digital payments via mobile money have helped to strengthen public sector budgets, facilitating more efficient investment and contributing to a more effective state.

- **Building security intelligence center**

People, technology, and capabilities are at the center of a dedicated security intelligent center that defends an entity's systems and provides an efficient, effective response to active threats and potential incidents. Kenyan mobile and banking industries understand that an effective security system depends much on the staff and their skills on the technologies they are using. Operational and analytical functions are being staffed with personnel who have knowledge of the network, systems, and software used, and

have cyber threat prevention, detection, and response experience. They continue to use cutting-edge technology, vigilant people and innovative processes used to detect, mitigate and effectively adapt to advanced cyber threats.

The two industries continuously re-evaluate their processes and procedures since information technology security is not a static target. All policies, practices, and procedures launched by the security intelligence center are always refined. A successful security center reveals probes, attacks, and incidents not previously visible. The data is then used to establish priorities for upgrading, patching and configuring systems and for adjusting security policies. Cyber threats continue to grow as such Cyber technology continually evolve too. Though no company or government is cyber threat proof, Kenyan mobile providers and banks progressively upgrade their systems against such threat.

On regulation, the Central bank and Communication Authority of Kenya continue to come up and review policies that create an enabling environment for players in the two industries.

Conclusions

Technology is forcing business entities in Kenya to keep changing their business models. Banks and mobile service providers continue to engage information technology companies in developing digital services and products. The two industries continue to keep customers at the forefront when adopting digital products and security. The availability and affordability of smartphones in the country have made the customer demand more from the two sectors. Customers are after convenience and affordability when engaging mobile and financial institutions. The government continues to regulate the industries in their use of technology. Technology has brought about partnerships and alliances between the two sectors of the economy. The two sectors may need to analyze possibilities have having shared agents in future.

Mobile money helps in formalizing the informal sector. In emerging markets like Kenya, the informal economy represents a significant proportion of a country's official GDP. For people working in the informal sector, there is often less job security, lower income, limited social benefits. For an entrepreneur, opening an account is an important step in the formal economy leading to the formalization of small businesses. Studies have found that the availability of mobile money has increased the macroeconomic output of Kenya's entrepreneurial sector by reducing the risk of theft and improving access to credit (Beck, Pamuk, Ramrattan & Burak, 2015). Mobile money has a significant positive long-term association with the growth of credit in the private sector.

Technology has brought about a stronger banking sector and digital ecosystem in the country. Over time, mobile money providers have created partnerships extending banking services, such as credit, to underserved segments of society. This has roped in the poor and unbanked more so in rural areas that were initially shunned by traditional banks. Partnerships with mobile money providers is a cost-effective way for commercial banks and microfinance institutions to collect public deposits and offer credit services to customers that are otherwise beyond their reach (Muthiora, 2015). Mobile money helps to strengthen informal savings groups, such as village savings and loan associations or rotating savings and credit associations. The partnership between the country's largest mobile provider, Safaricom and Commercial bank of Africa through M-Shwari, helped the bank sign up more customer, signing up 10 million in less than three years.

Mobile money providers keep developing mobile money ecosystem that supports a broad range of digital transactions. This helps to make mobile money more central to the lives of customers and to enhance the impact of the service on people and on Kenyan economy. The total value of digital money circulating across mobile platforms keeps growing as shown in the tables above. However, there are people still

who cannot access formal financial services because they lack the necessary evidence to prove their identity during the registration process, and therefore unable to register for a mobile SIM in the country. But digital identity, combined with the extensive use of mobile devices in the country, offers new hope in this regard. The governments are increasingly investing in digital national ID infrastructure and promoting the delivery of e-government services.

Offering and improving integrated multichannel delivery options available to customers. Different customer groups have varied preferences, as such, they must have options. Kenyan financial institutions need to introduce highly advanced analytical technology as it allows for an optimal channel experience. The optimal channel results from a customer's preferred channel and needs. There is no longer a 'one available option' for all customers but rather, banks need to data mine huge data and; from the results offer each client a special option providing most personalized customer experience. Financial institutions must continuously expand their existing digital payment options. These help in addressing consumer behavior. Continuously stimulate digital/mobile payment platform by introducing and testing attractive discounts and reward options.

Kenyan banking industry needs to continuously engage technological companies. This is advantageous since banks can leverage the economies of scale, maintain stability, get significant capital and gain meaningful experience in their navigation of (digital/technological) regulations. Similarly, technological companies have an opportunity to offer innovative culture, technological expertise. Such partnership benefits clients and increases business for banks. Banks need to partner with telecommunications companies on the complementary and not competing basis. Growing smartphone adoption in the country coupled with internet penetration has led to the expansion of e-commerce. The rise of technology to assist regulatory compliance and monitoring will help transform the possibilities for people still seeking financial services.

Embracement of Artificial Intelligence, Advanced Analytics and use of big data is the new frontier. The two sectors have at their disposal enormous amount of data and equally enough resources, but most Kenyan players have not exploited the huge potential in the data. The shortcoming may be attributable to non-cooperation among players at times, competing interests, the complexity of the data and how to decipher which data is important. However, the player must tirelessly find ways of turning the situation to their advantage; future use of intelligent machine learning will provide avenues for further personalization and channel optimization.

The government is readying the country for fourth industrial revolution by putting up Konza technopolis city dubbed "Savana Silicon, an African version of the Silicon Valley. These are meant to grow local startups, keep them in the country and sell their products/services to the west in future. Angel Investors in technology such as Google, IBM, and Samsung among others have already committed themselves to the project as the government has offered incentives/concessionary terms such as free land, tax holidays and favorable legislation among others. On the cybersecurity, the government has equipped the relevant institutions to detect, deter and offer prescriptive solutions to eminent technological threats. In addition, tough anti-cyber-crime legislations have been enacted as well as international cooperation with global technology companies and countries to prevent misuse of technology.

Finally, the government is encouraging the embracement of technology, having reduced or removed some taxes on IT gadgets and spare parts. The government is creating learning cultures at home and at various levels in the society, from the government to private sectors. The government through the ministry of education is ensuring that all children who start schooling are offered and instructed through information smart devices. This is meant to prepare a generation that is digitally and technologically savvy in readiness for the fourth industrialization. This will also help people and government find solutions to unemployment expected to result from full embracement of industry 4.0.

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FERİDE BAHAR KURTULMUŞOĞLU¹ AND KUMRU DİDEM ATALAY²

DETERMINING SERVICE FEATURES WHICH AFFECT BEHAVIOR INTENTION AND SATISFACTION IN AIRLINE INDUSTRY WITH GENDER AWARENESS

Abstract

Airline firms are required to prioritize service features on the basis of customers' satisfaction and behavioral intention. The goal of this study is the determination of the factors effecting the behavioral intention and satisfaction of airline passengers and defining the degree of their influence. Also, the effect of gender is investigated. The population for the study was airline passengers. The logistic regression analysis is chosen for the method of the study. The findings determine the factors which influence the behavioral intention and satisfaction of the airline passengers. These results may serve as a starting point for airline firm managers to tailor strategies to survive in the very competitive airline market. In the light of this study's findings, further research may focus on different demographic, psychographic, and behavioral features that are impactful on satisfaction and behavioral intention of airline passengers.

Keywords: Airline, satisfaction, gender, behavioral intention

JEL Codes: M30

1. Introduction

Passenger satisfaction and behavioral intentions are of great importance in airline market where an intense competition exists (Chou et al., 2011). The determination of passenger expectations and the effect of these expectations upon the passenger satisfaction and behavioral intentions are very important for the airline companies (Park, 2007). This will make the airlines one step ahead of their rivals and show them the dimensions of resource allocation (Chow, 2015). When determining the factors effecting the passenger satisfaction and behavioral intentions the socio demographic features of the passengers must be taken into account (Liou et al., 2011; Ukpere et al., 2012), since they have a marked influence on the airline choice, passenger satisfaction and behavioral intention (Clemes et al., 2008). One of the most deterministic ones among these socio demographic factors is gender which has a powerful effect on the decisions of the airline passengers (Westwood et al., 2000). The goal of this study is the determination of the factors effecting the behavioral intention and satisfaction of airline passengers and defining the degree of their influence. Also, the effect of gender is investigated.

The studies in the literature emphasize the relation between service quality and price perception with the gender of the passengers (Clemes et al., 2008; Ganesan-Lim et al., 2008; Stafford, 1996; Saqib et al., 2014; Carstens and Heyns, 2012). Similarly, Aksoy et al. (2003) ve Kim et al. (2011) showed the fact that the perceived service quality of the airline differ according to gender. The effect of gender variable upon the passenger satisfaction and behavioral intentions (Oyewole, 2001; Park et al., 2006) and choice attributes in passengers' decision-making processes (Carstens and Heyns, 2012; Heyns et al., 2011) in airline companies have been discussed in the literature. Chambers Travel (1995) pointed out the involvement of gender-specific products in airline market. Westwood et al. (2000) claimed that the airline services are male dominant and the expectations and the priorities of the women are not taken into account.

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2. Method

To determine the factors effecting the behavioral intention and satisfaction of airline passengers and define the degree of their influence, the binominal logistic regression method was employed. The first step is the scanning of the literature data to determine the variables which may affect the passengers' satisfaction and behavioral intentions. The second step was the formation of a 15- member focus group to discuss these variables. A 50-items 1-5 likert scale in was used to measure the satisfaction of the passengers on these factors. The behavioral intention measured by two phrases as "I will prefer this airline firm for my future trip" and "I will recommend this firm to my friends" using a 1-5 likert scale. Similarly, the passenger satisfaction was measured by three phrases: "I am satisfied with this airline firm", "this is a right choice" and "the airline firm respond to my expectation" by the use of 1-5 likert scale as a measurement tool. The survey was applied 401 people through e-mails provided by the airline companies. The responses of 401 participants were found to be adequate with 20% response rate based on 95% confidence level and 5% error margin, as presented in DeVaus' (2000) study. To test the reliability of the data collected, Cronbach's alpha was found to be 0.876. Considering the minimum expected alpha value as 0.70 (Nunnally, 1978), the data was deemed to be reliable for statistical analysis. It was also determined that 22.44% of the participants was at 45 years of age or above and 61.85% of them was woman.

In problems where the dependent variables are categorically stated the relations between the dependent and independent variables are determined by the use of logistic regression method. In problems where the dependent variables were stated be two categories (binomial), the relations between the dependent and independent variables are determined by the use binomial logistic regression method. In the case of binomial dependence the use of binomial logistic regression method is much more convenient. It enables us to determine the dependent and independent variable(s), the percentage of the variation attributed to the dependent variables and the relative importance of the independent variables. It is also a suitable method to measure the power of relations between the variables. In logistic regression analysis, there is no need to make any assumptions about the distribution of the dependent variables and conditions such as normal distribution independent variables, the homogeneity of their variances, and linearity of their relations (Hosmer and Lemeshow, 1989).

The significance of the presence of each independent variable in a model is tested by Wald statistics. The fact that whether the model obtained is suitable or not, is determined Hosmer-Leemeshow compliance test. The relation of the factors which play role in the occurrence of a case are expressed by relative risk measures which are relative risk or odds ratio. This ratio show the relative importance of the factor in the occurrence of the case (Menard, 1995).

The means of the items used in the determination of the two dependent variables of the study namely behavioral intention and passenger satisfaction were taken and converted in digits of 0 and 1. The spearman correlation coefficients of 50 items used in the interrogation system and the dependent variables were computed. The statistically significant factors with value of 50% or above were chosen as independent variables. In the model where behavioral intention was the dependent variable, 9 items which measure the satisfaction of the passengers and gender were chosen as the independent variables. In the model where the passenger satisfaction was the dependent variable, 17 items which measure the satisfaction of the passengers and gender were chosen as the independent variables. Therefore two digit models were established for each of dependent variables.

3. Results and discussions

The results of two logit models for two independent variables were tabulated in Table 1 and Table 2.

Table 1. Logistic regression results for behavioral intention of passenger

Factor	β	Standart error	Wald	df	Sig.	EXP(β) (Odds ratio)	95% Confidence interval for EXP(β)	
Caring crew	-,268	,389	,475	1	,491	,765	,357	1,639
Luggage complaints	,260	,204	1,624	1	,203	1,297	,870	1,933
cleanliness	,298	,328	,822	1	,364	1,347	,708	2,562
Gender	,751	,281	7,143	1	,008	2,118	1,222	3,673
Flight frequency	,382	,238	2,566	1	,109	1,465	,918	2,336
Flight safety	-,238	,298	,638	1	,424	,788	,439	1,414
Waiting time until take off	-,040	,284	,020	1	,889	,961	,550	1,678
Employees' knowledge	,525	,296	3,154	1	,076	1,691	,947	3,018
Online booking	-1,064	,365	8,482	1	,004	,345	,169	,706
Punctuality	1,460	,316	21,367	1	,000	4,306	2,318	7,996
Constant	-6,523	1,495	19,043	1	,000	,001		

Source: Author

In the model developed according to behavioral intention, there were three independent satisfaction variables namely punctuality, online booking and gender which were found to be effective on behavioral intention. Those with positive behavioral intentions are 0,345 times more effected from the “punctuality” than the ones with negative behavioral intentions. The affection of the ones with positive behavioral intentions from online booking was 4.306 more than those with negative behavioral intentions. The women have 2.118 times more positive behavioral intentions than the men. The variable which has the highest effect upon the positive behavioral intention was found to “punctuality”. Parasuraman et al. (1991), Surovitskikh and Lubbe (2008), Alamdari (1999), Feng andJeng (2005), Theis et al. (2006), Teichert et al. (2008) also emphasized the effect of this variable. The delays above the tolerance limits of the passengers have a very adverse effect upon them (Sauerwein et al., 1996). Campbell and Vigar-Ellis (2012) stresses the expectations from “online booking”. Online booking factor are of big importance due to its capacity of creating new and convenient channels, decreasing the cost and enabling the access to new markets (Hanke and Teo, 2003; Zeithaml and Gilly, 1987; Meuter et al., 2003; Bitner et al., 2002). The variable effect of gender upon behavioral intention was enlightened by Park et al. (2006).

Table 2. Logistic regression results for passenger satisfaction

Factor	β	Standart error	Wald	df	Sig.	EXP(β) (Odds ratio)	95% Confidence interval for EXP(β)	
Caring crew	-,862	1,154	1,154	1	,455	,422	,044	4,054
Luggage complaints	-,010	,641	,641	1	,988	,990	,282	3,476
cleanliness	,555	,527	,527	1	,292	1,741	,620	4,888
Flight safety	,745	1,084	1,084	1	,492	2,107	,252	17,632
Online booking	3,482	1,010	1,010	1	,001	32,514	4,490	235,453
Flight frequency	-,858	,627	,627	1	,171	,424	,124	1,449
Voyager miles	2,765	,597	,597	1	,000	15,878	4,932	51,115
Employees' knowledge	-1,382	1,091	1,091	1	,205	,251	,030	2,127
punctuality	3,427	1,565	1,565	1	,029	30,782	1,433	661,388
schedule convenience	-1,439	,700	,700	1	,040	,237	,060	,935
Waiting time until take off	1,692	,879	,879	1	,054	5,432	,969	30,434
Seat space and leg room	,002	,824	,824	1	,998	1,002	,199	5,039
Free in-flight food and beverages	-3,946	1,038	1,038	1	,000	,019	,003	,148
Cabin temperature	,578	,725	,725	1	,426	1,782	,430	7,385
Clear in-flight announcements	-,354	,770	,770	1	,646	,702	,155	3,177
Appearance of other passengers	,680	,839	,839	1	,417	1,975	,381	10,228
Overweight buggage fee	,246	,728	,728	1	,736	1,278	,307	5,324
gender	,745	,558	,558	1	,015	3,916	1,310	11,699
Constant	3,482	4,973	4,973	1	,000	,000		

Source: Author

There were six independent factors effective upon behavioral intentions, according to the results of the method developed for the factors effecting the passenger satisfaction namely online booking, voyager miles, schedule convenience, free in-flight food and beverages, punctuality and gender. The satisfied passengers are 32.514 times more effected by the online booking variable compared with the unsatisfied ones. The most effective variable in passenger satisfaction model was found to be online booking in parallel with the behavioral intention model. This effect is higher in passenger satisfaction method. The satisfied passengers also appeared to be 30.782 times more effected from the punctuality than the unsatisfied ones. This finding also coincides well with the behavioral intention model. The satisfied passengers are also effected from the of the schedule convenience 0.237 times more than the unsatisfied ones. This fact was emphasized by Ostrowski et al. (1993), O'Connell and Williams (2005) Theis et al. (2006), Chou et al. (2011). This ratio was 15.878 for voyager miles supported by the data obtained Campbell and Vigar-Ellis (2012), An and Noh (2009). The number of satisfied passengers effected from the in-flight food and beverages was 0.019 more than the unsatisfied ones. Hossain et al. (2011), Chou et al. (2011) and Park et al. (2006) obtained similar results. The women were found to be 3,916 times more satisfied than the men. However, Oyewole (2001) reported that the men are more satisfied with airline services than the women.

Conclusions

The results obtained in this study reveals the variables effecting the passenger satisfaction and proposals to guide the airline managers. The gender of the passengers appears to be very effective.

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NEW AND INNOVATIVE STRATEGIES FOR OBTAINING SUSTAINABLE TOURISM IN ROMANIA

Abstract

Tourism, being the world largest industry with a 4.6% growth to 1,184 million international arrivals worldwide in 2015 (UNWTO, 2016) is highly connected to everyday and business practices and territories. As such, moral concerns have been raised over the impact of tourism, as well as the hospitality industry, in terms of sustaining social life and the natural environment for the generations to come (Lovelock and Lovelock, 2013). Recently, the objective of sustainable tourism that supposed to be achieved should be clear and explicit. Though, there is no standardized way to reach such a goal. In spite of that is to develop a strategy and an action plan for sustainable tourism of useful measures to ensure effective and coordinated steps on the road for achieving its goal.

This is also one of the best provided approaches that include the involvement of all major interest groups and have an interest in establishing sustainable local development rule. It is simply defined as a tool of development and conservation.

The combined planning, we recognize the importance of planning for the tourism sector, especially in these circumstances that we look forward to building a strong economy. It built on strong scientific foundations of modern sophistication. Integrated tourism industry has become include planning, investment, construction, marketing and promotion of sustainable destination in Romanian tourism.

Keywords: Sustainable tourism, sustainable products, Romania, marketing strategies, management

JEL Codes: Z30, Z32, Z38

Motto: "Achieving conservation goals and improving lives through the power of tourism requires that destinations, tourism companies, and travelers all do their part."

Geoff Bolan, Sustainable Travel International CEO

Introduction

In a global environment that is changing faster than ever, megatrend analysis is critical for all companies to drive sustainable growth. As competition increases and new ideas continue to disrupt entire tourism industries, harnessing megatrend analysis allows businesses to remain relevant and succeed in the tourism market place of the future.

"Tourism is a growing market, especially in Romania, where it started to grow increasingly bolder wings. This makes room for everyone, but seeks out the best. The difference is not given by the hotel offered to the tourist, or by the program. Tourists are becoming more educated, more responsible and savvy. The tourist knows what to ask and to appreciate what is offered. Therefore, the difference lies in attitude, awareness, the ability to listen and to know how to solve the most relevant wishes of guest

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that steps into one's agency. Only if you know how to provide a nuance in addition to paid services, will you be sure that the tourist will entrust his holidays to you again or to others ever, for it is known that a satisfied tourist brings another 10 with him!., (Mazilu, 2012). Two elements are essential in the tourism industry system: how to make use environmentally, sustainably of the tourism potential of the landscape and the anthropogenic potential. The following are dedicated to them. Why ecology in tourism? Why ecology of hospitality? Why ecology of tourism? These are questions that I have partially answered and the book tries to bring to the attention of tourism phenomenon lovers issues, thoughts, experiences ... When asked "who is responsible for the suffering of many in the tourism industry?", the response of the era is abstract and impersonal, "system logic". Really? Perhaps the solution would be the recognition of responsible, green, smart tourism opportunities and I could add more synonyms for the concept of ecotourism.

However, Ecotourism has grown rapidly in recent decades. Although it has the potential to positively influence the natural and social environment in which it takes place, it can be as damaging as mass tourism, if not properly organized.

Although some details vary, most definitions of ecotourism reflect a distinct form of tourism that meets four basic criteria: it takes place in natural and cultural areas, it involves conservation measures, it encourages local community involvement and it supports local welfare. In this article will focus on the impact of ecotourism's global impact on efforts to protect, sustain, and enhance natural, cultural, and physical resources that add to quality of life and sustainable development. Recently, the objective of sustainable tourism that supposed to be achieved should be clear and explicit. With a total contribution of tourism to GDP of 5.1%, Romania ranks last in 2017 in Europe... behind Albania (16.7% of GDP), Bulgaria (13.3%), Hungary (10, 6%), the Czech Republic (8.4%) and Slovakia (6%). The total contribution of tourism to employment also unfortunately places Romania on the last position among the neighboring countries and on the 136th place in the world. Also this year, the total demand for tourist services will increase by 9.5% in Romania according to the estimations of World Travel & Tourism Council (WTTC). Romania's market share in the global tourism and travel industry is over 0.15% and will grow to nearly 0.2% by 2017. Romania's market share, depending on total tourism and travel demand, is on the rise, as the WTTC analysts noted.

Romania ranks 58th in the world by the absolute size of the tourism and travel industry and ranked 157th out of 176 countries, according to the relative contribution of tourism to the national economy. In terms of growth prospects for the tourism and travel industry, Romania ranks seven of the 176 countries included in the WTTC report. Romania's tourism and travel industry contribution to GDP was of 2.1% in 2007 equivalent of 7.9 billion ROL. It will increase, by the end of 2017, in nominal terms to 22.5 billion ROL equivalent of 2.9% of GDP. The direct and indirect contribution of the industry will be 5.5% of GDP or 20.2 billion lei in 2018 and will increase to 6.7% - 52.7 billion lei in the same period (Wall-street, 2014).

In terms of tourism and travels growth prospects for personal interest, Romania ranks fifth in the world, with an average annual growth of 7.7% between 2007-2016, at the same rank as Sudan and Libya. China, Maldives, Chad and Latvia are ahead of Romania in the WTTC Top. To the following questions: "Where does the tourism in Romania go? What are the main challenges and how can the main actors in the sustainable tourism sector be involved in generating that sustainable economic development that Romania needs so much?", the article but also the authors / co-authors try to answer methodologically (applying modern methods of research specific to the geography of tourism: the method of the questionnaire, direct observation, interview, analytical method, diagnosis and prognosis) of existing paradigms in the mind and concerns of any specialist in sustainable tourism.

The term ‘**sustainable tourism**’ emerged in the early 1980s building on earlier concerns about the negative impacts of tourism and linking tourism to the wider sustainability movement. Despite 30 years of discussion of tourism and sustainability in academic and government documents, recent reviews have suggested that there is considerable room for improvement in the practice of sustainable tourism. It therefore seems timely to review the progress of this idea and explore possible future directions for sustainable tourism. This consideration of future directions and contemplation of progress also supports a renewed examination of innovation in sustainable tourism. So it is timely to re-examine the concept of innovation in sustainability and reflect on how innovation has contributed to the sustainability of tourism in the last decade.

Though, there is no standardized way to reach such a goal. In spite of that is to develop a strategy and an action plan for sustainable tourism of useful measures to ensure effective and coordinated steps on the road for achieving its goal.

This is also one of the best provided approaches that include the involvement of all major interest groups and have an interest in establishing sustainable local development rule. It is simply defined as a tool of development and conservation. In recent years, eco-tourism sector, as a subset of tourism industry, plays a great role in improving the economy of developed countries and their local people (Delavar *et al.*, 2010).

But ecotourism should be balanced in terms of a clean environment without polluting and spoiling the natural beauty and also does not harm the surrounding population.

Ecotourism is a type of tourism that continues to preserve the natural and cultural resources (Kumari *et al.*, 2010, Mazilu 2012, 2016), providing various facilities in areas with tourist attractions, either relating to attraction on the natural environment or ecology-made through the modernization of physical and social infrastructure in the region to become one of the economic activities that contribute to the national income besides to being able to improve the living standards of local communities. When eco-tourism is planned well, it provides benefits for providing the sustainability of natural and cultural resources and bringing environmental, economic and social concerns together, in the contrary, it may cause as much harm as mass tourism do and it can damage the cultural structure in the touristic area due the problems that result from the interaction between the tourists and the locals (Pinar and Osman, 2012).

Main body / discussions

Steps for achieving sustainable tourism strategy

1. Analysis of the recent status quo.
2. Collection of information, current knowledge and analysis process which is considered as a prerequisite for the development of the strategy. The professionals have to take the following points into their accounts:
 - a. Developing former tourism or related strategies for the specific area:
(What can be used?
Has it been implemented?
What are the lessons learned?)
 - b. Analysis of the parties concerned of his interest in sustainable tourism development?
Who are the key players?
 - c. Identify all facts and figures on the local education system and economic and social structure.
 - d. Folk tales, traditional and anecdotes.

The collection of such information can be collected by one of the following:

- a. Personal interviews with the concerned parties.
- b. Preparing questionnaires that are distributed and collected via e-mail, fax or personally in order to get standardized data collection and statistical analysis tables.
- c. Holding meetings of groups that discuss a particular topic (e.g. meetings on environmental education, diversity and management).
- d. Survey literature: searching in local bookstores, libraries and also using net websites.

Setting up sustainable tourism strategy

Sustainable tourism strategy based on the collected information in the first phase (mentioned above). The strategy identifies the priority of issues and the community of interested parties and potential targets as well as setting up a range of methodologies to reach the following goals:

1. Maintain certain places or natural coastal habitats to make the region an attractive area or an area under legislation nature reserves.
2. Certain sectors of the regional economic development can be linked to the tourism sector (the production of a certain quality of foods and crafts).
3. Maximize local revenues from tourism investments.
4. Find a self-grown and cultural development of the region.
5. Launching action Plan to outline the necessary steps of implementing the strategy and to address a range of practical issues like: Who are the organizations that will do certain specific activities? What is the time frame for these activities? Any ways will be followed by the organizations? What are the resources?
6. As the action steps will be developed based on regional circumstances, there is no unified plan of action to be followed. The following measures mentioned in the following domains:

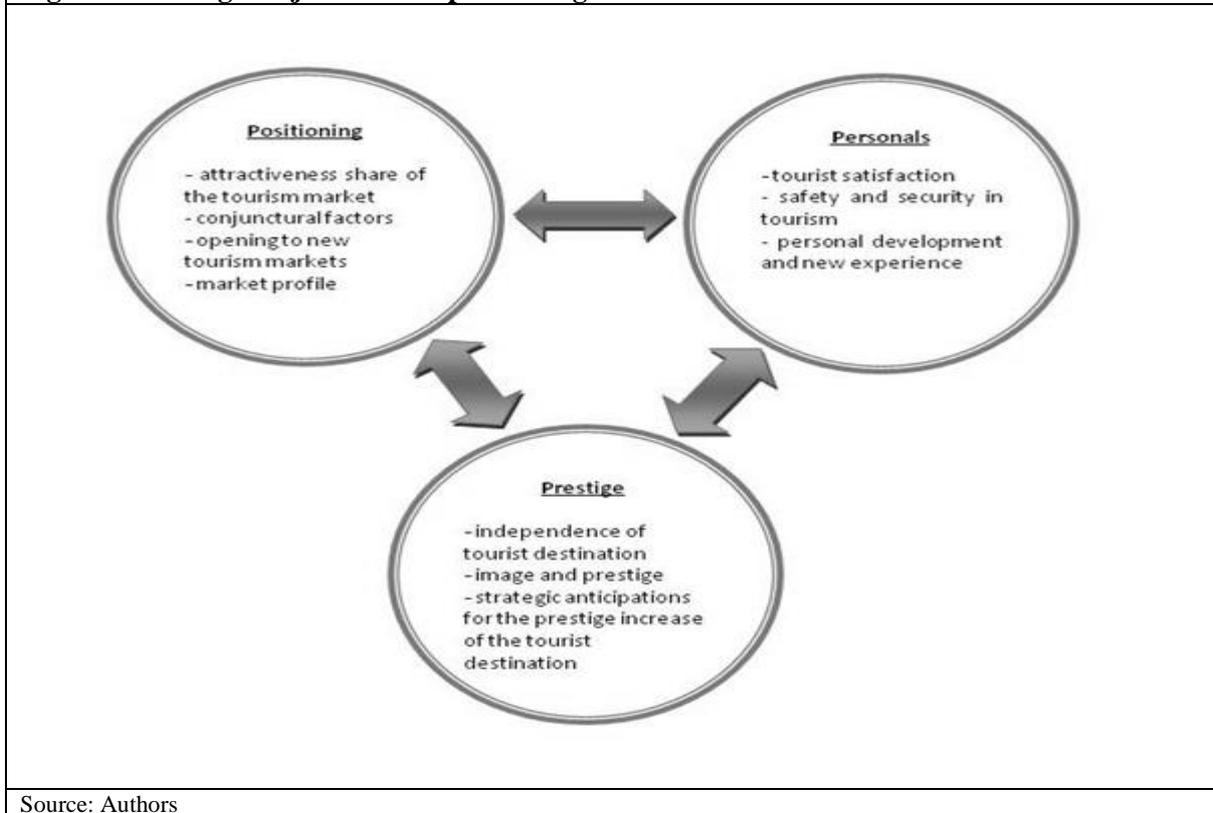
a. *Management*: such as strengthening cooperation between sectors and overlapping sectors of development models and also the involvement of local people in the formulation of tourism policies and its decisions.

b. *Socio-economic sector*, for example: it is to activate the process of buying local food; local building materials and the establishment of networks for local producers in order to improve marketing processes and also to develop new products meet the needs of tourists.

c. *Environment*: it is to improve environmental control and implementation of environmental standards (regarding noise, drinking water, shower water and sewage treatment, etc.) and to identify vulnerable habitats, protect and create areas for protection on sensitive environmental areas and prevent sports that would impact negatively on the environment in places threatened and application strict environmental impact studies and strategic measures for environmental assessment on all projects and programs related to tourism.

d. *Knowledge*: it means training human resources in the field of eco-tourism about the value of heritage, historical and environmental management as well as training of personnel in the nature reserves on the understanding of the nature and raises the environmental awareness of the local population and the introduction of program information for visitors.

Figure 1. Strategic objectives and positioning of tourist destinations



Source: Authors

Recently, on March 24, 2017, an initiative promoting Romania took place at the conference *Connecting Europe through Innovation*, organized at Madrid by the EP Intergroup on European Tourism Development, Cultural Heritage, together with the World Tourism Organization. The Romanian Minister of this domain (Mircea-Titus Dobre) underlined the steps taken by Romania in the domain of digital interconnection. One of the points approached was the use of information technology (IT) in the tourist sector, with reference to the mobile application *Explore Romania*, the first digital guide promoting Romania launched in Berlin and Paris in English and French. At the same time, also for the first time in tourism, our country will have, on July 1, 2017, its first *Master Plan of Investments in Tourism*, which will include over 1,400 projects submitted by county councils and town halls in charge with stations of national or local importance.

The budget for external promotion of our country is not to be ignored either, since, this year, about 5 million Euros have been allotted to it, a sum allowing also the organization of info trips for bloggers, journalists and foreign tour-operators, elaborating a *National Strategy for Tourism Development and Promotion as well*. These will establish concretely both the priorities and the measures that need to be taken in the domain of investments in infrastructure, and the clear definition of the tourist products of Romania and ways of promoting them on the internal and external tourism market.

Planning for sustainable tourism strategy

The planning for tourism development is as important as planning for the rest of the economic activities in the region, so, what tourism and development of great importance in achieving sustainable development at all national regional and local levels interest has increased in the recent tourism industry because of their economic importance and that is investigating large profits support the national economy for some states to be considered as a source of national income resources.

Efforts aimed at raising the level of tourism scientifically, technically and practically, some economic sciences, such as marketing, Art service delivery, and dissemination of tourism awareness among citizens, and other work-related tourism sciences.

The combined planning, we recognize the importance of planning for the tourism sector, especially in these circumstances that we look forward to building a strong economy. It built on strong scientific foundations of modern sophistication. Integrated tourism industry has become include planning, investment, construction, marketing and promotion and finally competitiveness and innovation (fig. 2). Competitiveness in tourism should be treated in the new terms of globalization of economic life, highlighting the crucial elements that can influence and can become competitive advantages for Romanian tourism.

The competitiveness horizon of Romanian tourism is inextricably linked to elements of strategy adopted by the Government through the National Tourism Authority, local governments, each economic agent. Starting from such an approach, we have defined and outlined two notions that those involved in the tourism industry must also learn and at the same time apply to produce competitive market services such as: competitiveness in tourism management and marketing.

Competitiveness in tourism suggests safety, efficiency, quality, productivity, adaptability, success, modern management, superior products, low costs. The competitive strength of a company lies in competitive advantages and distinctive competencies they it possess relative to other competitors.

The success of travel agencies and others is determined by the process of attracting, winning, satisfying customer needs, and by gaining their loyalty, which is key to quality of services / products offered; only in this way will the company get the expected profit.

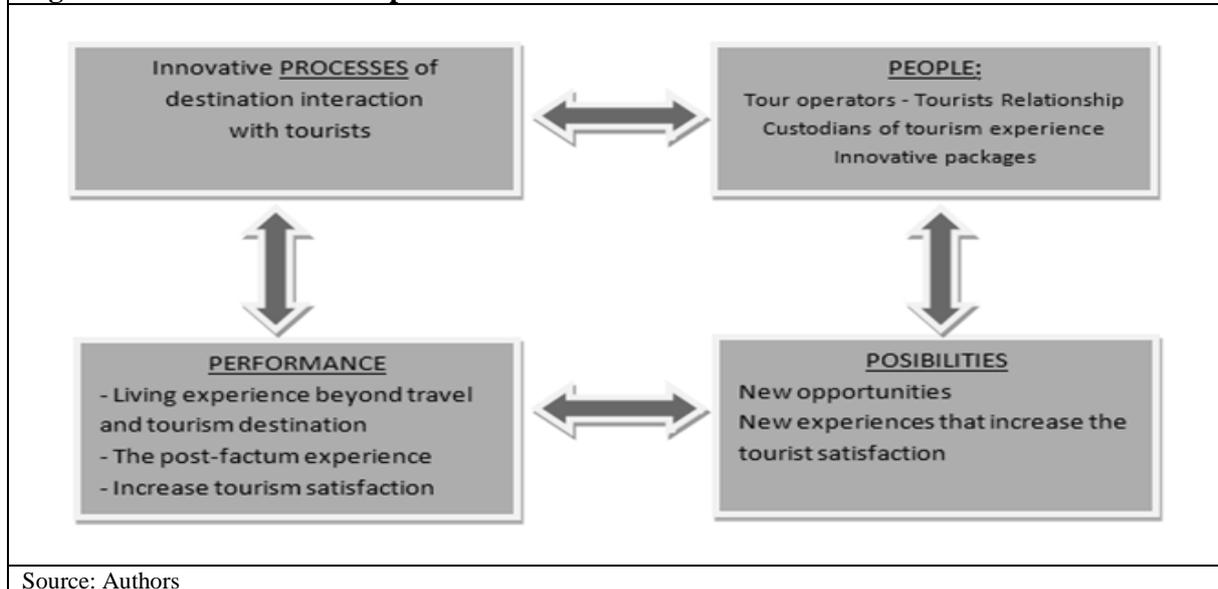
The essential aim of quality management is to achieve in conditions of maximum efficiency and effectiveness of only those *products that: fully meet customer requirements, comply with the requirements of society, comply with applicable standards and specifications, take into account all aspects of consumer and environmental protection, are offered to customers at the price and time agreed with them.* Introducing a quality system benefits all parties involved: the country as a destination, entrepreneurs, consumers and intermediaries. This includes ensuring a constant level of quality.

Concerns about the sustainable development, in each country, but also worldwide are caused by a complex of issues: poverty, amidst the wealth, environmental degradation, loss of confidence in the institutions, uncontrolled expansion of urbanization, lack of job secure employment, marginalization of youth, removing traditional values, unemployment and other financial or geopolitical and economic crises, etc.

Hence, it follows that sustainable development is defined by a *natural dimension* - meaning that this exists only as long as man-made environment is compatible with the natural environment; an *economic dimension*, based on competitiveness, a *social and human dimension* - all the exits from man-made environment must respond directly to the needs and interests of present and future generations that coexist and succeed, a *national, regional and global* - for the purposes of compatibility criteria optimization, both nationally and regionally or globally.

Thus, the concept of *sustainable development* and the strategy for achieving it raise the question of the human being and, in general, of the human community, from the perspectives of time and space (figure 2).

Figure 2. The 4 Ps of the competitiveness and innovation of sustainable tourist destination



Source: Authors

The destination management is the coordinated management of all the elements which create a destination. The destination management approaches strategically these entities, sometime very separate, for a better result.

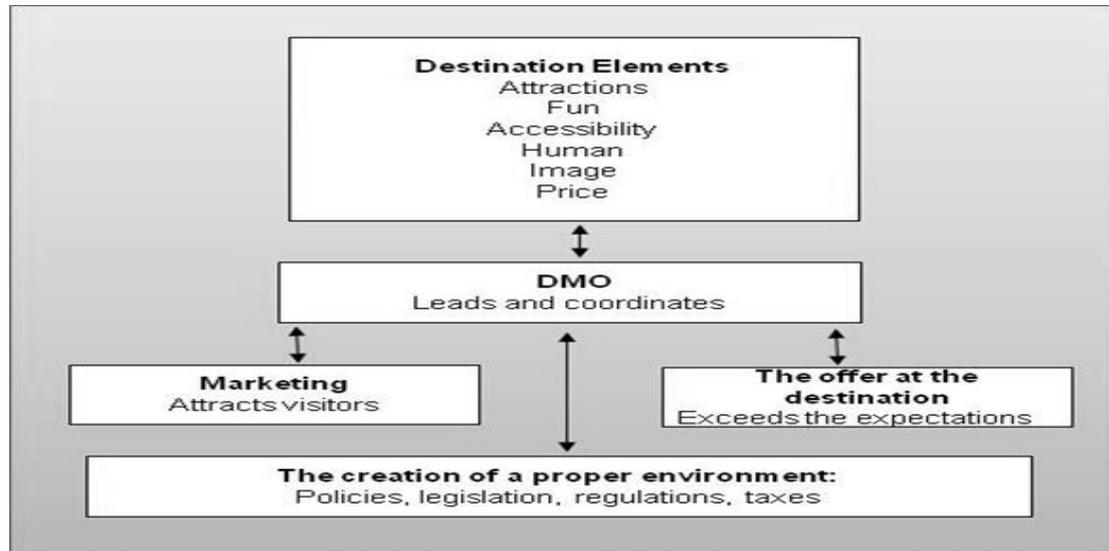
The perception of Romania as a tourist destination is unclear; it has not got a good reputation as a bona fide destination for occasional tourists. This is caused partly by:

- deficiencies in the destination marketing,
- the absence of governmental support in tourism,
- the unprofessional practices in the business tourism sector,
- the low standards of the services for the visitors,
- the deficient infrastructure, improper facilities and pass-time activities.

The re-launching of tourism from Romania, of the tourist destinations and the attraction of a larger number of foreign tourists could bring supplementary benefits, but with many necessary changes, in the tourism managers' opinion.

The coordinated management can help to avoid the doubling of the efforts regarding the promotion, the services offered to the visitors, the training, the support for business and the identification and the management of the problems which have not been solved, complying with the following stages (fig.3):

Figure 3. The organisation of the sustainable destination management



Source: Authors

Unfortunately, the capacity to support ecotourism destinations in Romania is overcome.

According to INSSE (The National Institute of Statistics in Romania), in Romania the capacity of tourist accommodation by macroregions and development regions in 2012-2016 is shown in Table 1.

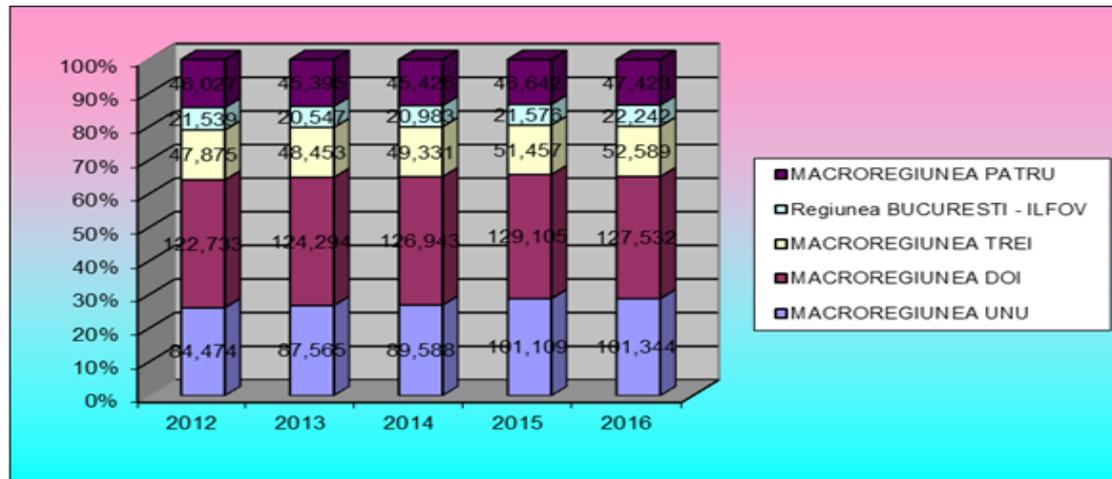
Table 1. The tourist accommodation capacity existing in Romania on macroregions and development regions

	2012	2013	2014	2015	2016
MACROREGION ONE	84.474	87.565	89.588	101.109	101.344
NORTH-WEST Region	30.687	30.029	28.991	32.210	33.848
CENTRAL Region	53.787	57.536	60.597	68.899	67.496
MACROREGION TWO	122.733	124.294	126.943	129.105	127.532
NORTH-EAST Region	24.200	25.492	26.055	28.184	28.763
SOUTH-EAST Region	98.533	98.802	100.888	100.921	98.769
MACROREGION THREE	47.875	48.453	49.331	51.457	52.589
SOUTH-MUNTENIA Region	26.336	27.906	28.348	29.881	30.347
BUCURESTI - ILFOV Region	21.539	20.547	20.983	21.576	22.242
Bucuresti Municipality	19.327	18.586	19.050	19.784	20.247
MACROREGION FOUR	46.027	45.395	45.426	46.642	47.423
SOUTH-WEST OLTENIA Region	19.947	18.446	18.815	18.821	19.190
WEST Region	26.080	26.949	26.611	27.821	28.233

Source: Authors

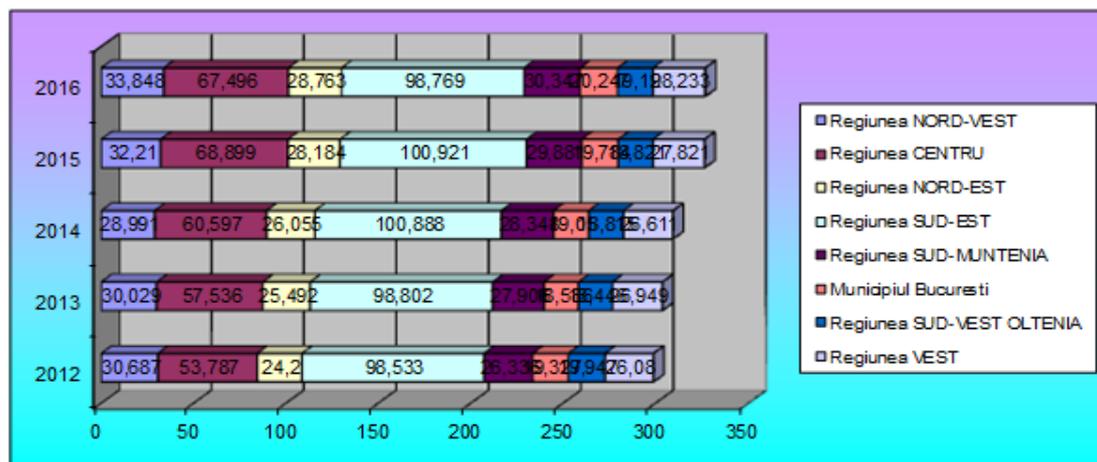
Macroregions one and two have the largest tourist accommodation capacity in 2016, and the macro-region four has the smallest capacity. Evolution over the period under review has been increasing for all macro-regions and regions.

Figure 4. Evolution of tourist accommodation capacity by macroregions in Romania



Source: Processed data from www.insse.ro.

Figure 5. Evolution of tourist accommodation capacity by development regions



Source: Processed data from www.insse.ro

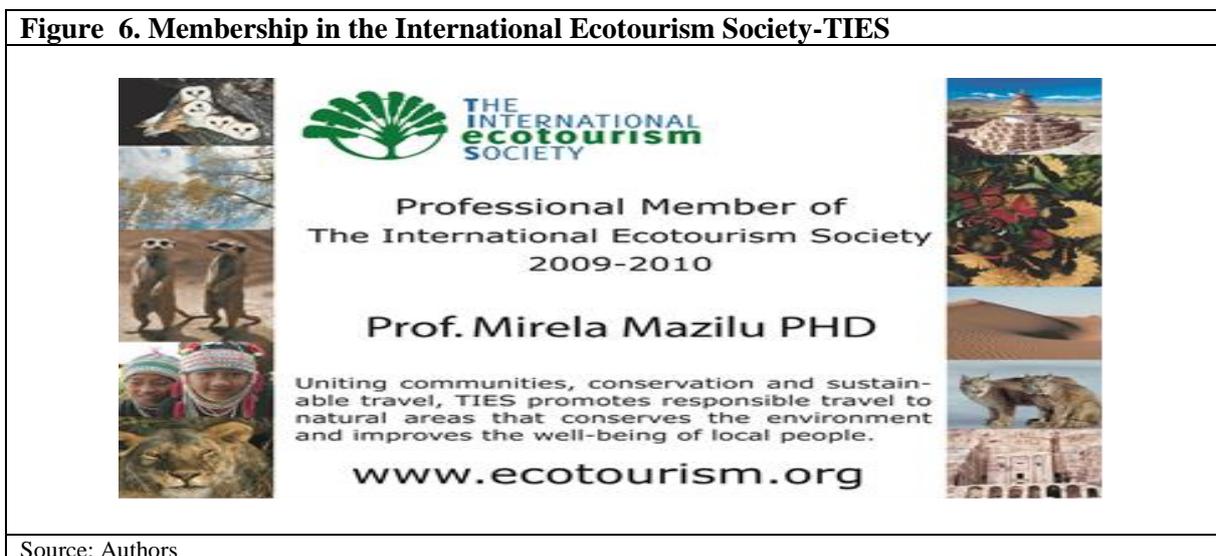
Conclusions

“The 2030 Agenda considers sustainable tourism as a vector of development, job creation and the promotion of local culture and products. Tourism is part of the Sustainable Development Goals and contributes decisively to almost all 17 Goals through its impacts on fighting poverty, promoting decent jobs, improving gender equality and the livelihoods of young people or the fight against climate change” (World Tourism Organisation -International Year of Sustainable Tourism for Development 2017 kicks off, 2017) said the Minister of Foreign Affairs and Cooperation of Spain, Alfonso María Dastis.

Consumers in 2017 are more demanding of products, services and brands than ever before. Consumer identity is multidimensional and in flux, with shoppers in a broader age range more likely to have a hand in defining themselves and their needs.

Aware that we are on the last places in the EU tops, the creativity and competitiveness of a destination is measured in business results. Yet, this is not so for the ecotourist one... The latter is appreciated in sustainability and naturalness,! especially that "sustainable development, recognizing the interdependencies between the three systems and taking into account the need for scientific understanding of the functioning of ecosystems, involves a profound change of mentality in the social system" (Popescu, Mazilu et al., 2015), but myself being member of TIES (The International Ecotourism Society) even since 2009, in the idea of preserving and sustaining the lasting development of tourism.

Figure 6. Membership in the International Ecotourism Society-TIES



What are the efficient strategies in 2017, the international year of ecotourism, declared officially by the World Tourism Organization? What do consumers want from the ecotourist destinations and what do the latter oblige them to respect once arrived at their destination?

For this purpose, between 1 and 4 October 2017, at the "High Level Meeting on Tourism Policies for Sustainable and Inclusive Growth" held in Paris, coordinated by the Organization for Economic Cooperation and Development, the Secretary of State Cristina Târteață, also organized a series of meetings with OECD officials, representatives of the European Commission, as well as with the Greek delegation headed by Elena Kountoura - the Tourism Minister and representatives of the French Tourism Development Agency - Atout France. The representative of the Ministry of Tourism recalled Romania's commitment to holding the presidency of the EU Council in the first half of 2019 and mentioned the importance of public-private partnership in the process of developing an integrated vision of the tourism sector. We can welcome as a model of good practice the establishment of the Tourism Advisory Committee within the Ministry of Tourism, but also Romania's commitment to holding the Presidency of the EU Council in the first half of 2019, adding the importance of public-private partnership to the development of an integrated vision on the tourism sector. The dialogue with Alain Dupeyras, the Head of the OECD's Travel Commission, which was attended by two officials, addressed a series of topics on the exchange of best practices in the coming period and the initiation of joint projects with possible EU funding. Perhaps we should apply what it was carved on the "Infinity Column" in stone by the great Romanian sculptor Constantin Brancusi (well-known over our country's borders for his works) and for centuries remaining a sublime parable. Only when we will know how to promote ourselves and

especially to keep our tourism resources sustainable, then we will have a lasting tourism worthy of an European country.

These are questions both complex and with a note of supplementary scientific contribution, which will influence the space and time dedicated to our future research

Figure 7. The Endless Column by Constantin Brancusi



Source: Authors

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KLADIOLA GJINI¹

PRODUCTIVITY AND EXPORT: EVIDENCE FROM BOSNIA AND HERZEGOVINA

Abstract

In this paper we empirically assess the macroeconomic productivity-export link for Bosnian firms over the 2003-2012 period, based on the Bureau Van Dijk Electronic Publishing (BvDEP) Amadeus dataset. The aim of this paper is to gain further insight into these topics by paying special attention to Learning by exporting and Self-selection effects. We start by estimating total factor productivity by the Levinsohn and Petrin (2003) method which uses a semi-parametric estimator and then analyze both LBE and SS effects with FE and Probit methods. In light of this relationship between total factor productivity and export, TFP is regressed on various variables i.e. lagged TFP, age, number of employees, size, export status, ownership and sector. This paper will be useful to readers who have already done research in these fields (or similar fields) or those who want to compare results from their own studies.

Keywords: Total factor productivity, export

JEL Codes: C33, D24, F10

1. Introduction

The aims of this paper are to present descriptive statistics regarding the economy of Bosnia and Herzegovina, estimate total factor productivity for firms and finding the link TFP-export. One of the advantages of this paper is the large dataset we handle. Data used for the descriptive statistics (the economy as a whole, and trade data) are collected from the World Bank database. Total factor productivity is estimated by using the Levinsohn and Petrin semi-parametric method (2003). The link TFP-export is explained by two non-mutually exclusive hypotheses: learning by exporting and self-selection by using FE and Probit estimations.

After analyzing Croatia in a previous paper (Gjini, 2017), this paper focuses on Bosnia and Herzegovina as another Balkan country.

To the best of our knowledge, this paper is one of the first empirical papers that addresses the link between productivity and export in Bosnia and Herzegovina.

This paper firstly contributes to the vast literature by finding productivity of firms in Bosnia and Herzegovina. Secondly by testing two hypotheses the SS and the LBE using a representative sample of firms. Bosnia and Herzegovina declared its independence in April 1992 from the former Yugoslavia. From 1992 to 1995 BiH has experienced war that increased unemployment and inflation levels. The war ended with the signature of the Dayton/Paris peace agreement. Situated in the Southeastern Europe, with about 3.52² million inhabitants Bosnia has a GDP of 16.56 billion (current US \$). Inflation is accounted in 0.652³ and unemployment remains high with 25.4%. High unemployment is associated with poverty, so it is crucial to improve the labor market participation and employment.

According to (Pavlovic et al., 2006), since the end of the war in 1995 the international donor community has supported firms in Bosnia, especially SMEs as the main driver for poverty reduction and economic

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² Source: World Development Indicators database 2016.

³ GDP deflator in percentage points.

development. But still Bosnia and Herzegovina faces and needs to address many economic challenges i.e. public sector, investments, and exports. The country has an imbalanced economic model, incentives and public policies should be oriented toward the private sector, consumption and imports. (Pavlovic et al., 2006) suggest that there are two risk factors which need to be addressed (1) high level of public expenditure and (2) external imbalances. There is a need for a boost of investments in order to improve several sectors like transport, tourism, energy and in general the business environment; followed by an increase in consumption⁴. According to (Kaminski and Ng, 2010) exports in Bosnia and Herzegovina remain low in terms of both per capita and gross domestic product compared to other Balkan countries. In developing countries there is a tendency to under report imports, while statistics in Bosnia and Herzegovina tend to under-estimate exports.

The remainder of the paper is organized as follows: section two presents the background of export performance in Bosnia and Herzegovina and some descriptive statistics.

Section three presents the methodology used to estimate total factor productivity, and two econometric models which explain the relationship productivity-export. *Section four* presents the empirical results and *section five* concludes.

2. Background of economy performance and descriptive statistics

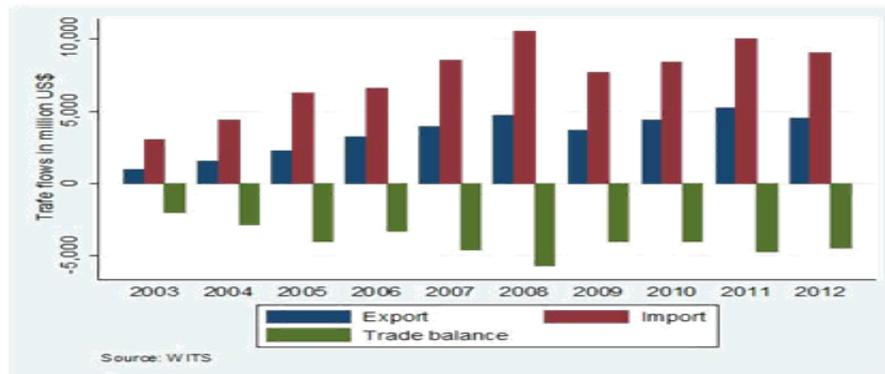
2.1. Bosnia's economy performance

According to the World Bank Bosnia and Herzegovina belongs to the upper middle income⁵ countries group. With a population of 3.516.816 inhabitants, situated in South Eastern Europe in the Western Balkan, Bosnia and Herzegovina remains one of the poorest countries in the region. According to trade data, Bosnia and Herzegovina has bilateral trade relationship with Germany, Italy, Serbia (Serbia and Montenegro), Croatia and China (top five export partners). Top five importing partners of Bosnia and Herzegovina are Germany, Italy, Croatia, Serbia (Serbia and Montenegro) and Slovenia. The number of exporting partners in 2016 is about 133 while the number of importing partners is 196. The number of imported products (4178) exceeds by far the number of exported products (2960). In figure 1 are shown export flows, import flows and the balance flow. Importing flows remains higher compared to exporting flows over the whole period, by generating a negative trade balance. Negative trade balances indicate an opening of the economy as a result of trade liberalization with the (Southeast) European region towards importing rather than exporting.

⁴BiH experiences low oil prices, deflation and steady remittances flows.

⁵ For the current 2018 fiscal year, upper middle income countries are defined as those with a GNI per capita, calculated using the World Bank Atlas method between \$3,956 and \$12,235.

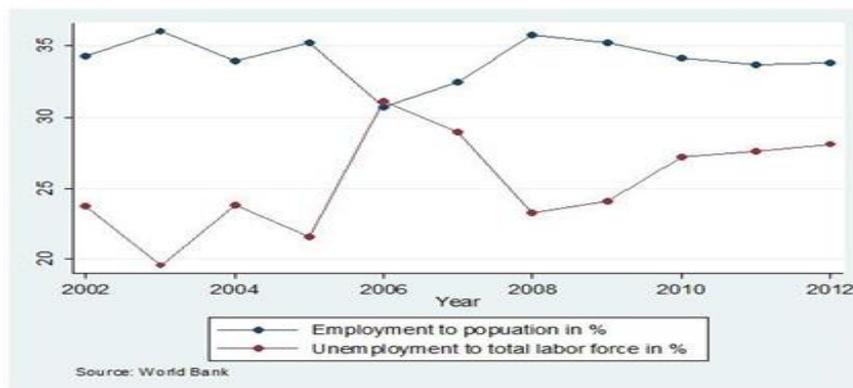
Figure 1. Trade flows in Bosnia Herzegovina



Source: Author

In figure 2 is shown the percentage of employment and unemployment for the 2003-2012 period. Data are downloaded from the World Bank database, where the employment to population ratio (+15) in percentage points is modeled according to ILO estimate. The unemployment ratio in percentage points of the total labor force is calculated according to ILO estimate. Employment remains above the 30% during the whole period with a peak in 2006 (about 30.7%). The highest employment rate is achieved in 2003 (about 36.01%). Referring to figure 2 there is a trough in the unemployment line in 2006 (about 31%) and the lowest unemployment rate is reached in 2003 (19.5%).

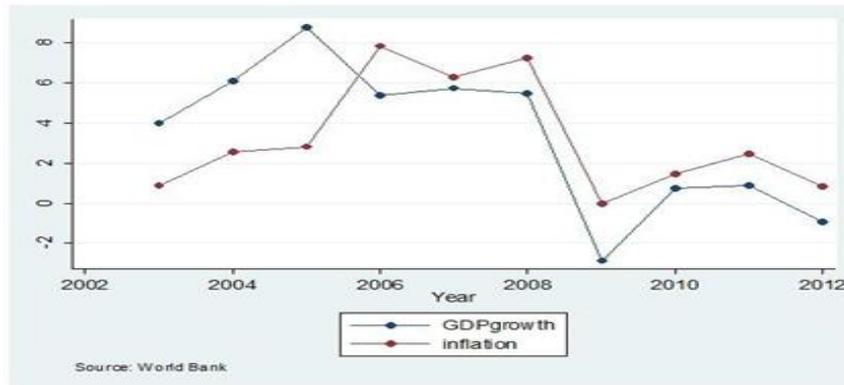
Figure 2. Employment/unemployment in BiH



Source: Author

GDP growth and inflation are shown in figure 3. GDP growth has the highest value in 2005 and its lower value in percent points in 2009. From 2007 to 2009, due to the global financial crisis there is a drastically drop in the GDP growth from 5.7% to a negative value of -2.86%. Inflation here is calculated as the GDP deflator in annual percentage points. Inflation in 2006, 2007 and 2008 reaches its highest levels (about 7.8%), and immediately after it reaches the lowest value of the whole period. According to (Chivakul et al., 2008) high inflation levels in these years is attributed to the global energy and food prices shocks. Low inflation coincides with (1) healthy growth (2) strong domestic demand and (3) two digits increase in wages (Chivakul et al., 2008).

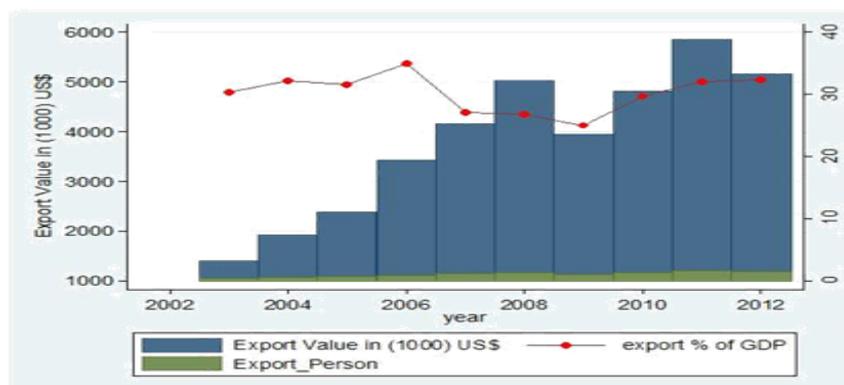
Figure 3. GDP growth/ inflation in BiH



Source: Author

Bosnia's total exports (measured in thousand \$ US) are presented in figure 4 and show a significant growth from 1.4 \$US millions in 2003 to 5.02 \$US millions in 2008. As shown in figure 4 in 2009 there is a drop in export due to the global financial crisis. In the following years after 2009, there are signs of quick recovery. The other two ratios (exports over GDP and exports per person) measure the integration of the Bosnian economy. The export-GDP ratio increased from 30.2% in 2003 to 35% in 2006. In the following years until 2009 there is a drop to 25% in 2009. After 2009 the export-GDP ratio increases again to 32% in 2012. Similarly, the ratio export per person has the same shape and trend of the export flow. On the one hand, these indices confirm the increasing degree of the integration of the Bosnian economy. On the other hand we notice possible external shocks that might influence the economy.

Figure 4. Export, Export/person and Export/GDP ratio



Source: Author

2.2. Descriptive statistics

We use a large panel dataset of 46164 observations for 11409 firms in Bosnia and Herzegovina. The data is representative because it includes many firm-level variables and has a reasonable time-series dimension. Data⁶ are collected from Bureau Van Dijk Electronic Publishing, the Amadeus database. All

⁶ Data are annually observed.

variables are presented in the local currency of Bosnia, and are deflated with the GDP deflator⁷ variable. The dataset includes variables of tangible fixed assets, capital, sales, materials costs, number of employees (lagged one period), age, export status of firms (coded 1 if the firms has positive export revenues and 0 otherwise), ownership (coded 1 if the firm has foreign ownership and 0 otherwise). We use logarithmic values of sales and material costs to create the value added variable as the difference between the two. We use log lagged values of number of employees, and log values of capital. Based on number of employees we create another variable size which includes for categories (coded 1 for micro, 2 for small, 3 for medium and 4 for large) for firms.

The variable age provide information on the age of the firm, and is generated as the difference between the actual year and the minimum reporting year in the database. We convert the age variable in logarithmic values. Based on the NACE rev2 classification we categorize firms on the manufacture sector (NACE 4 digit less than 3330) and in the service sector (NACE 4 digit between 8299 and 4510).

Table 1. Summary statistics for interest variables

Variable	Obs	Mean	Std. Dev.	Min	Max
ln output	46164	12.17853	1.728852	4.330956	19.9761
ln capital	46164	11.60762	2.4321	2.977013	21.70239
ln tfp	46164	7.183709	1.208133	-.3319207	13.67511
export	46164	.2789186	.4484723	0	1
foreign	46164	.0449918	.2072883	0	1
sector	39285	.3137839	.4640356	0	1
employees	46163	2.091754	1.322546	0	8.552175

Source: Author

According to the *ownership* variable in the first column of table 2 we find that the majority of Bosnian firms in the sample belongs to domestic owners (4.11% vs 95.89% respectively). Based on the *size* variable in the second column of table 2 the sample has a majority of micro firms (65.5%) and large firms are very few (1.55%). In the third column of table 2 firms are classified according their *export status*. For all the years the number of non-exporting firms exceed the number of exporting firms. And in the last column of table 2 firms are classified according to the *sector* where they operate.

Approximately 25.42% of firms operate in the manufacture sector, and the remaining 57.92% operate in the service sector. We have 1479 firms which nor operate in the manufacture sector nor in the service sector⁸.

⁷ GDP deflator values are collected from the World Bank and merged with our panel data.

⁸ Excluded firms with Nace4digit higher than 8299 and firms with nace4digit between 3510 and 4500: operating in the electricity, gas, steam and air conditioning supply, Water collection, treatment and supply, Sewerage, Waste collection, treatment and disposal activities; materials recovery, Construction, Specialized construction activities, Wholesale and retail trade and repair of motor vehicles and motorcycles, Public administration and defense; compulsory social security, Education, Human health activities, Residential care activities, Social work activities without accommodation, Creative, arts and entertainment activities, Libraries, archives, museums and other cultural activities, Gambling and betting activities, Sports activities and amusement and recreation activities, Activities of membership organizations, Other personal service activities, Activities of households as employers of domestic personnel.

Table 2. Descriptive statistics

Year	Ownership		Size				Export		Sector	
	Foreign	Domestic	Micro	Small	Medium	Large	Exporting	Non-exporting	Manufacture	Service
2003	21	617	413	159	51	15	121	517	184	386
2004	21	739	483	187	74	16	170	590	222	452
2005	38	856	564	245	70	15	219	675	259	503
2006	46	952	637	274	69	18	223	775	278	595
2007	41	955	613	291	75	17	278	718	276	570
2008	50	1022	693	280	82	17	253	819	280	630
2009	54	977	676	279	67	9	294	737	242	590
2010	79	2095	1493	529	124	28	536	1638	476	1280
2011	76	1935	1327	513	140	31	597	1414	483	1157
2012	43	792	567	199	58	11	248	587	201	446
Total	469	10940	7466	2956	810	177	2939	8470	2901	6609

Source: Author

3. Methodology and data

3.1. Empirical framework for total factor productivity

Many empirical and theoretical articles deal with total factor productivity, but one of the first contributions on this field is the paper of (Solow, 1957). Total factor productivity can be estimated by several methods, by parametric and/or semi-parametric techniques where many methodology issues are overcome. Most important issues are simultaneity and selection. TFP is obtained as the residual from the relationship output - inputs and productivity. (Van Beveren, 2012) make a practical review for TFP estimations. Lately researchers do not use the traditional method of ordinary least square due to the correlation between input decisions and productivity. There is high risk for simultaneity and selection bias when using OLS estimation. The simultaneity problem was analyzed briefly by (Marschak and Andrews, 1944).

In their paper they assume a profit maximizing firm, where Y_{it} is the output and X_{it} are inputs⁹ and ϵ_{it} which represents the error¹⁰ indexed by the firm and the time. According to (Marschak and Andrews, 1944) simultaneity arises when there is correlation between inputs and unobserved shocks¹¹. According to their research when inputs have a time of adjustment more rapid to the shocks this problem can be more "acute". Sometimes when the decisions on input use are based on errors there are some further adjustment costs, which lead to the simultaneity problem. Furthermore (Griliches and Mairesse, 1995) state that the impossibility of the econometrician to control for input's choice, and the ability of the firm to make its own decisions reflect the simultaneity problem.

(De Loecker, 2007) has defined the endogeneity of inputs or simultaneity problem as the correlation of the unobserved productivity shocks to the input level decisions of the firm. If firms have prior

⁹ Inputs here include adjusted ones i.e. materials or labor, and those which can have adjusted costs i.e. capital.

¹⁰ The error here captures the differences between predictions and observations outcomes.

¹¹ Correlation between the error and the inputs for the firm i and across time t .

knowledge for productivity ω_{it} when deciding for input use, endogeneity can arise because input decisions are taken based on this prior knowledge (Akerberg et al., 2015).

In order to overcome selection and simultaneity there are several estimators: fixed effect (FE), instrumental variables, generalized method of moments (GMM), the semi-parametric algorithm developed by (Olley and Pakes, 1996) and (Levinsohn and Petrin, 2003), (Akerberg et al., 2015), (De Loecker, 2007), (Katayama et al., 2009) and (Wooldridge, 2009).

We use micro level data on active firms from Bosnia and Herzegovina operating in the manufacture and service sectors. Our focus is on the (Levinsohn and Petrin, 2003) semi-parametric algorithm which use intermediate inputs¹² to resolve simultaneity issues.

3.1.1. The monotonicity and perfect competition conditions

Both studies of (Levinsohn and Petrin, 2003) and (Olley and Pakes, 1996) use some assumptions which are well described in the papers of (Griliches and Mairesse, 1995) and (Akerberg et al., 2015). One of the assumptions to deal with is monotonicity.

For (Levinsohn and Petrin, 2003) the demand for intermediate inputs¹³ should be monotonic in ω_{it} and for (Olley and Pakes, 1996) investment should be monotonic in ω_{it} as well. The productivity shock can be expressed as a function of intermediate inputs (or investment) and capital but it is required to invert the intermediate demand function/investment function to solve the simultaneity problem. (Akerberg et al., 2015) argue that ω_{it} is the only "unobservable scalar" entering the demand functions for intermediate inputs or investments¹⁴. Furthermore, (Akerberg et al., 2015) suggest that timing for input choices is important to the model. The choice of inputs k_{it} and l_{it} during the ω_{it} process is referred to timing.

In their research (Olley and Pakes, 1996) assume that capital is chosen exactly in the previous period of time $t - 1$. While (Levinsohn and Petrin, 2003) assume that capital can be chosen exactly at the previous period of time $t - 1$ or prior to this period. If this assumption is violated, then the innovation term ξ_{it} and the input variable k_{it} cannot be orthogonal to each other. (Levinsohn and Petrin, 2003) and (Olley and Pakes, 1996) have some contradictory assumptions for the labor input. LP state that labor can have dynamic implications, while OP state that labor must not have dynamic implications. Both methodologies of (Olley and Pakes, 1996) and (Levinsohn and Petrin, 2003) agree that at least one input¹⁵ will respond immediately to new information.

Here is the Cobb Douglas production function. More details regarding the TFP estimation can be found at the end of the paper (in the Annex section).

$$Y_{it} = A_{it} K_{it}^{\beta_k} L_{it}^{\beta_l} M_{it}^{\beta_m} \quad (1)$$

Y_{it} is the firm's output i in period t ; A_{it} is the Hicksian efficiency level of firm i in period t ; $K_{it}^{\beta_k} L_{it}^{\beta_l} M_{it}^{\beta_m}$ are respectively inputs of capital, labor and materials.

Equation (1) is transformed into equation (2) as below in logarithmic values:

¹² In the value added case we subtract intermediate inputs from the production function.

¹³ Or cases when demand for intermediate inputs is non zero reporting.

¹⁴ The idea of this assumption is strictly related in inverting out ω_{it} .

¹⁵ This input will have lower adjustment costs.

$$v_{it} = \beta_0 + \beta_k k_{it} + \beta_l l_{it} + \omega_{it} + \eta_{it} \quad (2)$$

Equation (3) is the demand function for intermediate inputs as a function of productivity (ω_{it}) and capital (k_{it}). The monotonicity condition allows us to invert equation (3) into equation (4).

$$m_{it} = m_t(\omega_{it}; k_{it}) \quad (3)$$

$$\omega_{it} = \omega_t(m_{it}; k_{it}) \quad (4)$$

3.2. Export premium

One of the first contributions that evidence differences (in various dimensions) between exporters and non-exporters is from (Bernard et al., 1995). We present the export premium by regressing export on different firm characteristics. The *Control* variables include age of firms, the sector (manufacture or service), the size (micro, small, medium and large), employees and ownership (foreign or domestic). X_{it} include firms' productivity, assets, capital, wages and sales for the 2003-2012 period. Exporters' premium can be computed from the estimated coefficient β as $100 * (\exp(\beta) - 1)$.

$$\ln X_{it} = \alpha + \beta \text{export}_{it} + \gamma \text{Controls}_{it} + \epsilon_{it} \quad (5)$$

In table 4 is shown the superior performance of exporters compared to non-exporters.

3.3. Model specification for the SS and LBE effects

In this section we present the methodology used to test two non-exclusive hypotheses namely self-selection and learning-by-exporting. The first hypothesis the self-selection assumes that due to entry costs to foreign markets, only more productive firms will access into the foreign market. The second hypothesis suggests that firms after entering the foreign market enhance their productivity due to international competition, or learning from foreign customers or benefits from economies of scale. Empirical evidence confirms the first hypothesis (first direction of causality) that more productive firms tend to self-select into export activities, and it is ambiguous for the second hypothesis (second direction of causality) the learning by exporting hypothesis. (Haidar, 2012) and (Harris and Li, 2008) state that firms prior to entering the foreign market need to overcome some extra costs related to international customer demands, transportation, marketing and distribution. (Haidar, 2012) analyzes Indian manufacturing firms and confirms the impact of productivity in export but does not provide evidence of learning by exporting (export has no impact in productivity). (Harris and Li, 2008) have analyzed the link between TFP and export. They confirm that before entering the foreign market exporter firms should have a higher performance than non-exporters. Higher productivity of firms is a result of an increased efficiency in production and an improved technology.

Several studies confirm the self-selection hypothesis i.e. (Antonietti and Cainelli, 2013) have analyzed Italian firms, (Ito and Tanaka, 2013) for Japanese firms, (Movahedi and Gaussens, 2011) have analyzed SMEs in Lower Normandy France, (Mañez-Castillejo et al., 2009) for Spanish firms. (Bravo-Ortega et al., 2014) in analyzing Chilean firms compare innovative and non-innovative firms. R & D firms have a higher tendency to conduct export activities compared to non-innovative firms. The learning by exporting refers to post entry productivity. According to (De Loecker, 2013) there are several mechanisms which increase a firms' productivity when starting to export i.e. more marketing investing, higher product quality, innovation and international customers. (De Loecker, 2013) analyzed Slovenian data. Self-selection hypothesis is confirmed by (on Exports et al., 2008) for 14 countries analyzed. While

the learning by exporting hypothesis is confirmed in 1 out of 14 countries. (Wagner, 2016) has conducted an exhaustive literature review on trade and productivity by collecting all empirical studies.

(Wagner, 2012) analyzes 11 countries and finds strong evidence on the fact that more productive firms self-select into exporting, while for the post-entry productivity gains there are mixed results. For the self-selection hypothesis we estimate a Probit model using Bosnian firm level data where the probability to export depends on productivity and other firm characteristics i.e. size, age, sector and ownership. For the learning by exporting hypothesis we use a FE model where TFP is regressed on export status and other firms' characteristics i.e. size, age, sector and ownership.

$$TFP_{it} = \beta_0 + \beta_1 TFP_{i,t-1} + \beta_2 Exp_{i,t-1} + \beta_3 Controls_{it} + \epsilon_{it} \quad (6)$$

$$Prob(EXP = 1) = \Phi(\alpha TFP_{i,t-1} + \alpha_1 Exp_{i,t-1} + \alpha_2 Controls_{it}) + d_i + \psi_{it} \quad (7)$$

4. Results

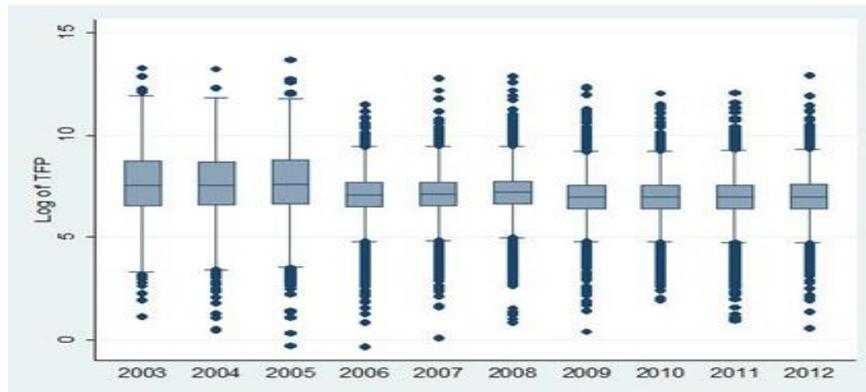
Results on the TFP estimation are presented in table 3. We can compare coefficients from three different methods. According to the literature review OLS estimates produces biased coefficients. Using the LP method we find that the coefficient of labor β_l is about 0.732 and the coefficient for capital β_k is about 0.298.

	OLS	FE	LP
	Beta/se	Beta/se	Beta/se
In labor	0.789*** (0.01)	0.658*** (0.01)	0.732*** (0.01)
In capital	0.126*** (0.00)	0.018** (0.01)	0.298*** (0.01)
cons	9.061*** (0.03)	10.589*** (0.07)	
N	46164	46164	46164
(se) statistics in parenthesis *se ≤ 0.05 ** se ≤ 0.01 ***se ≤ 0.001			

Source: Author

In figure 5 we present the box plot over the years for TFP. We know the minimum, the maximum, and first quartile, median and third quartile. This box plot gives us a good overview of the data's distribution.

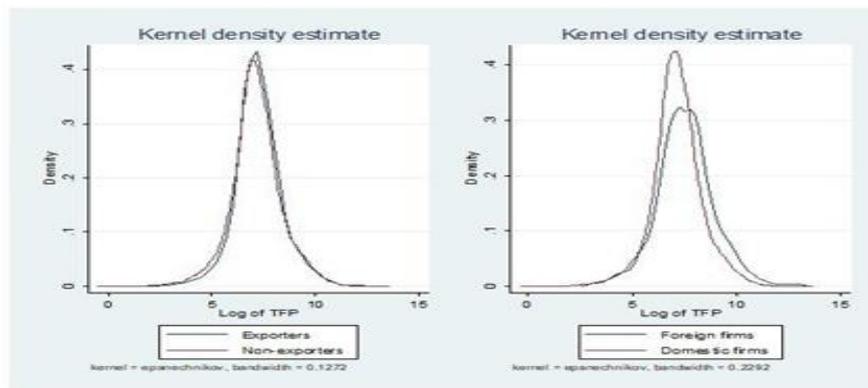
Figure 5. Box plot Intfp over years



Source: Author

On the left side of figure 6 we present using a histogram differences between exporters and non-exporters. We want to visualize the underlying distribution of the TFP variable. On the right side of figure 6 we present using a histogram the differences between foreign owned firms and domestic owned firms. The difference in TFP between foreign owners and domestic owners is visible. Foreign owned firms and exporting firms in BiH have higher productivity.

Figure 6. Kernel densities



Source: Author

Results from estimations show that exporters exhibit higher performance in terms of *assets* and *capital* use, but exporters do not pay higher *wages* for their employees. Also we conclude that exporters have higher *sales* compared to their counterparts.

Table 4. Export premium for firms in BiH

	Intfp	Inassets	Incapital	Inwage	Insales
	Beta/p	Beta/p	Beta/p	Beta/p	Beta/p
export	0.142*** (0.000***)	0.083*** (0.000***)	0.125*** (0.000***)	-0.046*** (0.000***)	0.034 (0.078)
cons	9.194*** (0.000***)	11.191*** (0.000***)	8.495*** (0.000***)	8.762*** (0.000***)	12.191*** (0.000***)
N	16127	16127	16127	15612	16127

P-values in parentheses *p ≤ 0.05 ** p ≤ 0.01 ***p ≤ 0.001

Source: Author

For the learning by exporting: In the first column of table 5 we regress *Controls* on the TFP variable. In the second column we add *lags of export status*. In the third column we add *lags of productivity*, and in the fourth column we add *lags of productivity* and *lags of export status*. As shown in table 5 export participation has a positive statistically effect on TFP. These results confirm the LBE effects of firms as pointed by (De Loecker, 2007). Also *lags of export status* (one period) and *lags of productivity* (one period) have a significant positive effect on TFP. The *age* and *size* variables have negative coefficients. We also conclude that *ownership (domestic/foreign)* of firms and sector (manufacture/service) of firms do not have any association with productivity. They are statistically insignificant for the four models.

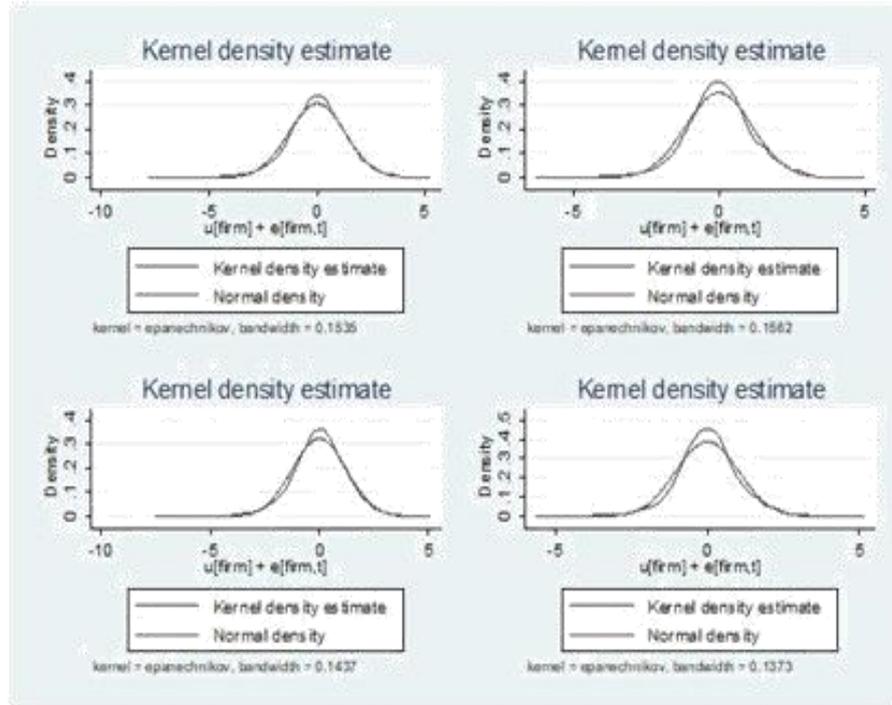
Table 5. Learning by exporting effect

	est1	est2	est3	est4
	Beta/p	Beta/p	Beta/p	Beta/p
export	0.140*** (0.00)		0.130*** (0.00)	
age	-1.246*** (0.00)	-0.940*** (0.00)	-1.203*** (0.00)	-0.870*** (0.00)
size	-0.145*** (0.00)	-0.229*** (0.00)	-0.161*** (0.00)	-0.237*** (0.00)
foreign	-0.259 (0.60)	0.157 (0.84)	-0.233 (0.63)	0.423 (0.58)
sector	0.296 (0.63)	0.000 (.)	0.269 (0.66)	0.000 (.)
lagexp		0.035*** (0.00)		0.023** (0.00)
lagtfp			0.102*** (0.00)	0.170*** (0.00)
cons	10.171*** (0.00)	9.363*** (0.00)	9.374*** (0.00)	8.122*** (0.00)
N	16128	5831	16127	5831

P-values in parentheses *p ≤ 0.05 ** p ≤ 0.01 ***p ≤ 0.001

Source: Author

Figure 7. Kernel densities for residuals LBE estimations



Source: Author

For the self-selection effect: we use the random effect Probit model estimation and present the results in table 6. As shown in table 6 total factor productivity has a positive and statistically significant effect in export participation. These findings support the self-selection hypothesis of firms in Bosnia and Herzegovina, more productive firms self-select into foreign markets. When we add to our model one period lag of the productivity variable, we observe a positive and statistically significant effect of TFP in exporting (column 2 and 4 in table 6). Our results suggest that the effects of TFP in exporting are long-run. With regard to the sector of firms, manufacturing firms proved to have higher probability to export than their counterparts. Going to the variable ownership, as can be seen from table 6 foreign owned firms gain a higher probability of exporting than domestic owned firms. In terms of the size variable, SMLEs¹⁶ have a higher probability to export compared to their counterparts (micro firms). When using year dummies (third and fourth column in table 6) with regard to export participation in Bosnia and Herzegovina we still find evidence of more productive firms self-selecting into export market.

¹⁶ Small medium and large enterprises.

Table 6. Self-selection

	est1 Beta/p	est2 Beta/p	est3 Beta/p	est4 Beta/p
Intfp	0.110*** (0.00)		0.196*** (0.00)	
age	0.555*** (0.00)	0.474*** (0.00)	-0.159** (0.01)	-0.207*** (0.00)
2.size	0.495*** (0.00)	0.468*** (0.00)		
3.size	0.959*** (0.00)	0.909*** (0.00)		
4.size	1.215*** (0.00)	1.153*** (0.00)		
foreign	0.743*** (0.00)	0.761*** (0.00)	0.500*** (0.00)	0.561*** (0.00)
sector	1.131*** (0.00)	1.098*** (0.00)	1.279*** (0.00)	1.205*** (0.00)
lagtfp		0.065*** (0.00)		0.101*** (0.00)
lsize2			0.555*** (0.00)	0.512*** (0.00)
lsize3			1.118*** (0.00)	1.019*** (0.00)
lsize4			1.650*** (0.00)	1.507*** (0.00)
lyear2004			0.336*** (0.00)	0.233** (0.00)
lyear2005			0.437*** (0.00)	0.311*** (0.00)
lyear2006			0.733*** (0.00)	0.430*** (0.00)
lyear2007			0.802*** (0.00)	0.589*** (0.00)
lyear2008			0.780*** (0.00)	0.590*** (0.00)
lyear2009			1.129*** (0.00)	0.892*** (0.00)
lyear2010			1.352*** (0.00)	1.142*** (0.00)
lyear2011			1.514*** (0.00)	1.305*** (0.00)
lyear2012			1.301*** (0.00)	1.079*** (0.00)
cons	-3.620*** (0.00)	-3.083*** (0.00)	-3.665*** (0.00)	-2.627*** (0.00)
Insig2u cons	1.291*** (0.00)	1.278*** (0.00)	1.213*** (0.00)	1.210*** (0.00)
N	16128	16127	16128	16127

P-values in parentheses *p ≤ 0.05 ** p ≤ 0.01 ***p ≤ 0.001

Source: Author

Conclusions

Our analysis is based on a single country Bosnia and Herzegovina for the 2003-2012 period. Situated in South Eastern Europe in the Western Balkan, Bosnia and Herzegovina remains one of the poorest countries in the region. Economic data on employment, unemployment, inflation, GDP and GDP growth are retrieved by the World Bank (WB) website. Trade data on export, import and trade balance are retrieved from the World Integrated Trade Solutions (WITS) (COMTRADE data source) website. In this paper we compare productivity for exporters and non-exporters. We conclude that exporters outperform non-exporters.

Self-selection and learning by exporting hypotheses are empirically evaluated by using a panel dataset drawn from Amadeus database that contain financial information for public and private enterprises. We confirm the learning by exporting hypothesis, exporting has a positive impact in productivity by using fixed effect regressions. We find that ownership and sector of firms have no effect in the learning by exporting hypothesis. It means that after entering the export market there are ex-ante productivity gains. Their coefficients are statistically insignificant to all the four models.

We confirm the self-selection hypothesis where the majority of the variables in the four models are positive and statistically significant. When adding lags of productivity variable we still find evidence of self-selection of more productive firms into export markets (columns 2 and 4 table 6). Small, medium and large firms have a higher probability to export compared to micro firms. Firms that operate in the manufacture sector tend to have higher probability to export. Aging for firms increases the probability to export (except for the two last columns in table 6).

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JOAQUIM RAMOS SILVA¹

A TURNING POINT IN THE INTERNATIONAL ECONOMY?²

Abstract

During the first six decades after World War II, the world economy was characterized by increasing free circulation, either through multilateral rules or integration arrangements. The process was even boosted from the late 1980s to the outbreak of the Financial Crisis in 2007-08, a period usually called the age of globalization in the today most common sense. It is worth noting that the major international flows like trade and investment intensely participated in these developments, not only quantitatively but also covering new areas at a scale rarely seen before, as was the case for direct and financial foreign investments.

In view of past experience, the financial crisis raised fears of a slowdown if not a stop in the process. However, in the years that immediately followed the crisis, particularly after its nadir in 2009, despite some reduction in the growth rate of the main international flows it was not witnessed a significant roll back to protectionism and they remained dynamic, a fact that deserves some attention. More recently, and particularly since 2016, the vote in Brexit and the victory of Donald Trump in the US presidential race, with their self absorbed rhetoric, as well as the rise of populist parties and authoritarian governments in Europe and elsewhere, often with a like language, the alarm bell rightly rang again. In fact, increasing free circulation and globalization was never a peaceful issue (see for example, Rodrik, 1997: “Has Globalization Gone Too Far?”) or discussed without passion. Anyway, they have progressed, but, in face of the new challenges, we need to ask the question: will we see a reversal of the trend that prevailed in the postwar?

The search for an in-depth answer is very important for social scientists. Of course, as it naturally introduces more uncertainty over the future, we cannot have a right and final response, but we should endeavor to understand better the situation and see carefully what is at stake. Furthermore, and quite clearly, advances in knowledge in this direction require not only competences in economics but also from political science and social sciences in general, just to mention other relevant perspectives, to the extent all these dimensions are very much intertwined.

Some points must be put forward in this direction. The evolution of the world economy in the last decades, surely imperfect and uneven in certain regards as for example in what concerns sustainability and domestic income distribution, had positive effects due to its push towards a better and more rational functioning. As a consequence of the openness, large portions of the world population improved their welfare, most notably in regions that were stagnated since a long time ago. If we cannot deny that the enlargement and intensification of free circulation brought about major benefits, at the same time, we fell into what has been called the “losers – winners” issue, not only between countries but also between different sectors of economic activity inside individual countries. Indeed, the process also meant more competition, domestic or external, inducing the need to be prepared for recurrent adaptation in several areas of activity. Although globalization is not the only cause of these changes, it has more often been accused of being the main culprit of those considered as negative outcomes. In this context, we cannot however underscore for example the contribution of technological innovation for the changes that have been observed so far.

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In these circumstances, social scientists have a key role in the explanation of the complexity of the situation, establishing its multiple links and extensions. Of course, it is necessary to mitigate the negative consequences of the process and to be prepared to overcome its challenges, but it is also necessary to persist in the fundamental way of openness, long ago praised by Ricardo (1817) and others, not only because of economic reasons but also due to its extra-economic effects (like peace and coexistence) insofar, according to his own words, it “binds together by one common tie of interest and intercourse, the universal society of nations”.

Keywords: Globalization, crisis, reemergence of protectionism, complexity, interdisciplinary approach

JEL Codes: F02, F55, F60

During the first six decades after WWII, the world economy was characterized by increasing free circulation either through multilateral rules or integration arrangements. This trend was even boosted from the late 1980s to the outbreak of the Financial Crisis in 2007-08 a period usually called the age of globalization in the today most common sense.³ It is worth noting that the freer circulation process not only expanded to new geographical areas where countries and regions had de facto remained closed or relatively closed in the first decades of the period (examples of this are China, India, Eastern European Countries) it also showed an intense participation of the major international flows: trade in goods and services, financial and direct investments, current and capital transfers, and even if lagging behind the others, but more likely with the strongest political effect: the movement of people across boundaries. Since the middle of the 1980s some of these flows grew at a scale rarely seen before, as was the case for direct and financial capital mobility; foreign direct investment (FDI) in particular had powerful effects and became a driver of the world economy (see Kalotay, 2017), and associated with it, the number of multinational enterprises (MNEs) increased quite substantially.⁴ Of course, the broader use of new technologies of communication and information brought about through the innovation process, and also popularized after the late 1980s (world wide web), impacted on globalization, from several perspectives; for example, with regard to the new facilities of communication, the costs of internationalization’s operations have become much lower for many firms around the world. Anyway, it is important to stress that with the inclusion of new regions and new flows, and the large emergence of MNEs, the openness process also became more complex and intertwined.

Taking into account the new landscape where the world economy has evolved in the last three decades, as just described in broad lines, first, this paper will focus on the Great Financial Crisis of 2007-2008 and its aftermath, particularly the political shifts of the year 2016 that have threatened a long period of openness in the postwar. Afterwards, we look carefully at the debates over the globalization phenomenon, which often have obscured rather than turned clear this important subject. Finally, in face of the situation that has been created we analyze the role of social scientists, economists in particular, aiming at their more active role in the clarification of the process.

The last decade and its environment: from the Great Financial Crisis up to the politico-economic developments after 2016

Being at its roots or not, the financial crisis of 2007-08 offered an occasion to question the previous evolution of the world economy. In view of past experience, and to the extent that this crisis, since its

³ In this paper, we will identify globalization with freer and progressively unhampered circulation (of the various international flows), and openness policies without significant restraint. We also take globalization as a process, and not the complete absence of restrictions to circulation.

⁴ According to Kalotay (2017, p. 12-3) based on UNCTAD data, in the early 1990s, the number of MNEs was about 37,500 and that of affiliates was about 207,000. In 2017, the corresponding figures were 100,000 MNEs and 860,000 affiliates, i.e., “the number of parent firms increased more than 2.5 times, and the number of affiliates more than four times”.

very beginning, was considered as a deep and structural one, there were fears of a slowdown if not a stop in the openness process. However, in the years that immediately followed the crisis, particularly after its nadir in 2009, despite some inevitable reduction in the growth rate of the main international flows it was not witnessed a significant roll back to protectionism and they remained dynamic, a fact that deserves attention, insofar it was argued that this derived from new features of the world economy like the development of global value chains (GVCs) (Bergeijk, 2010). GVCs, linking investment, trade and technology throughout the world, and basically led by MNEs, bind more closely countries, and in these circumstances, any significant protectionist retreat would thus risk backfiring to the detriment of its promoters.

In spite of this transformation, with more evidence since 2016, the vote in Brexit and the victory of Donald Trump in the US presidential race, with its nationalistic rhetoric of the “America First” style, as well as the rise of populist parties and authoritarian governments in Europe and elsewhere, often with a like language, the alarm bell rightly rang again. In face of the new challenges particularly when coming from countries that led much of the opening process since 1945, we need to raise the issue: *will we see a reversal of the openness trend that prevailed in the postwar?* Although our analysis in this paper is more concentrated on this period, a response is even more necessary to the question within a long-term perspective, insofar globalization has advanced by “waves”, i.e., has followed a cyclical pattern since the early 19th century (BIS, 2017, p. 100; Keller et al, 2017, p. 3); so, is it possible that after several decades of the openness and increasing free circulation, a new turn takes place?

The search for an in-depth answer to this issue is key for the scientific community, particularly that of social scientists, since they have the means and the conditions to make a less emotional, more rational study, and they also can spread its results, and to influence policies more consistently in a favorable sense to openness. Of course, as these questions come involved in uncertainty over the future course of events (admitting major shifts in determinant previous tendencies of the world economy), and the subject became more complex, as referred to above, we cannot expect to have a right and straightforward response. In spite of this, we should endeavor to understand better the true causal chains that underlie them and examine carefully what is at stake. Furthermore, and quite clearly, knowledge advances in this direction require not only competences in economics but also from political science and social sciences in general, just to mention other relevant approaches, since all these dimensions are very much interconnected. For example, popular perceptions on globalization often mix subjective valuations on the new hierarchy among nations (emergent economies, most particularly China, defy the old order) not fully based on the facts. All this has to be seriously taken into account.

It should be first acknowledged that globalization was never a peaceful issue or discussed without passion, and by the turn of the new century there was a burgeoning literature focusing on either its negative and positive sides (Rodrik, 1997, Stiglitz, 2002, Bhagwati, 2004, just to mention some of the most representative works). For those focusing more on the complaint against the negatives outcomes of globalization – or better, what authors such as Stiglitz (2002), supposed to be negative like the risk of concentration of its benefits on MNEs and rich countries, which would like, to design the process and its policies for their own sake –, the arguments appeared often associated with more traditional protectionist positions (for an account, see Hillebrand et al., 2010), particularly when the dynamical character implied by comparative advantages is forgotten.⁵ Anyway, this literature disclosed much of the terms of the debates to come, in particular, if it is not possible to deny that the enlargement and intensification of free circulation brought about significant benefits to the world economy as a whole (and contrary to the previous order, was inclusive for hundred of millions of people), at the same time,

⁵ These authors mention a paper published by Samuelson in 2004 (following another one from 1972), where he sustains “that growth in the rest of the world can hurt a country if it takes place in sectors that compete with its native exports – where it has comparative advantage”. They also report the approval of important US politicians to Samuelson’s views (Hillebrand et al., 2010, p. 7).

we fell into what has been called the “losers – winners” issue, not only between countries but also between different sectors of activity inside individual countries. Although most of the technological, economic and social processes produce complex outcomes of this type, and must be analyzed under the perspective of short and long term effects, the “losers – winners” logic was very much inflated in the case of globalization, taking into account its real or supposed vulnerability. Moreover, later, this frame even overwhelmed much of the specificities and consequences of the financial crisis and the troubling implications of the technological and innovation process.⁶

Apparent responsibilities of globalization and everything else

On the basis of free circulation, the evolution of the world economy in the last decades, surely imperfect and uneven in many regards as for example in what concerns sustainable development, the prevention of international financial risks and domestic income distribution, had without doubt positive effects due to its push towards a more efficient and rational functioning of the economy. Human and financial resources could be used in better conditions and places, and thus providing higher returns to be shared by all stakeholders. As a consequence of the openness, large portions of the world population improved their welfare, most notably in regions of the South that were in stagnation since a long time ago, and whose production became more valued in the new conditions.

Globalization also meant more and tough competition, domestic or external, inducing the need to be prepared for recurrent adaptation in the most diverse areas of activity. Indeed, the process allows a better access to the global marketplace, but at the same time the domestic markets of many firms, contrary to what happened in the past, become less protected. This means that in several contexts, the advances of globalization have costs (adjustment costs for example), deriving from short-term or structural reasons, and its benefits are not automatic, immediate and fairly distributed among all stakeholders. Moreover, firms and agents must constantly be prepared from multiple points of views to be maintained in the global market and to respond to its requirements. In a global market where new players may freely enter, the international competitiveness of firms is permanently changing and they must be alert to overcome the problems put by more intense competition. Also, governments of individual countries should promote the conditions to optimize the benefits of globalization (as small Nordic countries and some East Asian countries have done), for example facilitating the re-training of labor force with new skills in order to respond to the new challenges and tasks, as those just described, that inevitably are brought about from enlarged and dynamic global markets, and creating other externalities that go in the same sense.

Alongside the globalization phenomenon and its inherent increasing competition, we cannot underscore the contribution of technological innovation for the acceleration of changes that have been observed in the two or three last decades. In particular some research has been conducted on the comparison between the consequences of freer circulation and those of technological innovation both processes implying deep economic restructuring, affecting firms and workers, namely the fruits of the process, and the way forward. Analyzing the case of increased within-country income inequality, the BIS (2017, p. 109) stresses that “There is strong empirical evidence globalization is not the main cause of increased within-country income inequality; technology is. Still, the critics of globalization have often confounded the challenges that it poses with the main drivers of many economic and social ills.” We recall that the technological problem is not only a question of rapid evolution in the last decades but it is also related with times to come since for example it is expected an increasing use of robots, the effects of the internet of things and other processes.

⁶ For example the last period we identified in the postwar, after the late 1980s, was called “Hyperglobalization” by Rodrik (2011).

Obviously globalization is not the only cause of all these changes, and it gave a new opportunity for large parts of the world, in spite of that it has more often been accused of being the main culprit of those considered as negative outcomes. In the tradition of political economy the insistence of globalization critics might not be a surprise. As stressed by Kindleberger more than three decades ago: “... man in his elemental state is a peasant with a possessive love of his own turf, a mercantilist who favors exports over imports; a Populist who distrust banks, especially foreign banks; a monopolist who abhors competition; a xenophobe who feels threatened by strangers and foreigners” (1986, p. 4). In our view, Kindleberger raised a very important point to understand a context that has broad significance in the second decade of the 21st century: the international sector, despite its classical benefits, is in a weak position and can be abusively considered as a “scapegoat” no matter its true influence in the recent developments and problems.

Conclusion: On the role of social scientists, and economists in particular, to overcome the present difficulties

In these circumstances, and in order to keep the world economy in an open path, social scientists have an important role to play in the explanation of the complexity of the current situation, turning clear its multiple links and extensions. And economists in particular, instead of creating more confusion must aim at a greater clarification. Although it is well known that economists do not fully agree in the terms of the debate over protectionism versus free trade (see for example the arguments on infant industry protection and the promotion of increasing returns specialization), but the problem that has been put in the last years is of a complete different nature in the sense of locking the doors, and to forget the great legacy of interwar period that recommended openness. Meanwhile, it must be pointed out that even in a long-term perspective there are new research attempts of maintaining openness (Cliff and Woll, 2013). Moreover, even if social scientists act in the best way and spirit and tackle with the true problems that are at stake, it is not sure that they will succeed in the short term. As the example of the 1028 US economists who publicly opposed the Smoot-Hawley Tariff Act in 1930, including some of the most known economists of that time, shows well, only much later the disastrous effects of the generalized protectionist policies of this kind were plainly recognized. In view of all this, it is necessary to foster the work towards the defense of openness.

Summing up, we certainly need to mitigate the negative impact of the globalization process in the short term and to be prepared to overcome its multiple challenges, but we also need to persist in the fundamental way of openness, long ago praised by Ricardo and other authors, not only because of economic reasons (specialization, greater efficiency, increased production) but also due to its extra-economic effects (like peace and coexistence) insofar, according to his own words, trade “binds together by one common tie of interest and intercourse, the universal society of nations throughout the civilized world” (quoted in Silva, 2010, p. 393).

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GAETANO BRUNO RONSIVALLE¹ AND ARIANNA BOLDI²

A MODEL TO SELECT TRAIN AND ASSESS “DATA SCIENTIST” PROFESSIONAL PROFILE IN BANKS: ARTIFICIAL NEURAL NETWORKS AND INFORMATION TECHNOLOGY APPLIED TO THE HUMAN RESOURCE DEPARTMENT

Abstract

The “data scientist” professional profile is becoming more and more important in the banking sector, as companies need to analyze, interpret and use the big amount of data coming from business lines and customers. However, HR departments still do not have a reference model in selecting, placing and developing “data scientist” in a more effective and efficient way, also protecting their industrial relationships. The HR department should provide operational answers to the following questions: a) in which area should I place the current or the new human resource to best employ his competences?, b) how much should I invest in training paths to improve his competences?, c) how should I assess his performances, one year after the employment? To manage this complexity, we used a specific type of artificial neural network (Self-Organizing Maps), to find clusters emerging from mathematical algorithms. We applied this tool to an actual case, a multinational bank, analyzing several data scientist profiles, belonging to different organizational areas. First, we collected the data from the qualification and the job description profiles offered by that specific financial institution. Therefore, we configured the neural architecture. Then we connected the input neurons with a two-dimensional map, setting the synaptic weights randomly. Finally, we trained the map by repeating the data of a small group of vectors, corresponding to the best performer’s profiles identified by the banks. The software generated a Kohonen Map which represents the topological distribution both of the profiles in the bank and of the competences of each resource before and after a defined work period. We believe every HR department could use these maps to a) arrange the resources in the organization, b) obtain accurate and quantitative data about the required economic investment in training and c) evaluate their performance: banks would benefit from having customized training paths.

Keywords: Neural networks, banks, data scientist, competences, kohonen map, training, assessment, information technology

JEL Codes: M53, M54

1. Introduction

For a long time, organizations had the problem to collect, record and codify data, in order to extract knowledge and make previsions using a small amount of operations. With the digital revolution, a huge variety and volume of information is available: thus, companies try to make sense of data in order to take decisions for their own survival. This is why data science and their professional represent a topic of attention internationally.

In a bank, predictive analysis is important as well, in order to provide commercial value to their customers, employees and stakeholders. Banks run on data to lead their normal activities, with a specific attention for compliance and risk management. Data scientist can make the best use of “Big Data” and share their knowledge to answer the business needs and help executive in defining strategies. Therefore, HR Department and HR Business Partners should be very interested in this relatively new professional figure.

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According to several researchers and company administrators, a shortage of talent necessary for organizations to take advantage of big data it is an issue for the forthcoming years (McKinsey and Company, 2011): this requires a model to select, train and assess the resources, based on a description of their competences and career paths. This is a complex matter for HR because of a few reasons: first of all, people in data science roles are continually challenged in keeping abreast, while tools and practices change very quickly (Key Perspectives, 2008). Secondly, data scientists have usually acquired their role developing expertise in their field and strengthening specialist data skills. It is not uncommon that each data scientist, currently employed in an organization, has a personal path and owns knowledge and abilities which are different from his colleagues (Oranjob.com, 2017). Certainly A data scientist needs a wide range of skills to cope with complex problems. Finally, they also have to possess a specific competency in the domain in which they operate: as a consequence, it could be hard to recruit the right person, with the exact combination of skills (Key Perspectives, 2008) and an intensive training period is required, anyway.

As we have conducted this research in Italy, we point to the features of the geographical context: Italy still suffers from the lacking investment in “hard science” training (Mosca, 2017). Then, the researches on this topic are especially carried in the UK and in the US (Manyika et al., 2011; Davenport & Patil, 2012; Yuri et al., 2017; EDISON, 2017) In summary, we are approaching in a really uncertain and land.

These studies are primarily carried out with a combination of and quantitative and qualitative method. We have decided to focus our analysis on a single organization, a multinational bank, trying to describe what is the state of the art. In the first phase, we have collected documents and materials provided by the HR Department. We have deepened the analysis having an interview with the HR Manager, the Data Governance area and the HR Business Partner. Then, we have compared these data with the list of competencies, skills and knowledges listed by EDISON. The resulting Kohonen Map provides both the distributions of the assets and of the profiles in a bi-dimensional space where they are displayed, categorized and placed.

2. Methodology

For the purpose of this study, we have conducted both a qualitative and a quantitative analysis. First of all, we have collected the data a from the last release of the EDISON Competence Framework documents, which will be described further. They represent the data base for the neural network tool. Simultaneously, we have involved two representative people of the bank, to collect qualitative data with some interviews and to confront the early results of the model with the actual situation of the banks. They have been useful to interpret the data coming from the Kohonen’s Map and to depict a more realistic scenario of the actual level of knowledge about data science in financial institutions.

2.1. The EDISON Report

The aim of the EDISON project is to create a foundation for establishing a new profession of “Data Scientist” for European research and industry through the creation of a comprehensive framework for Data Science education and training (EDISON, 2016). The Data Science Framework is called EDSF and is composed by the definition of five elements:

- CF-DS - Data Science Competence Framework
- DS-Bok – Data Science Body of Knowledge
- MC-DS – Data Science Model Curriculum
- Data Science Professional profiles and occupations Taxonomy (DSP)
- Data Science Taxonomy and Scientific Disciplines Classification (Professional Families)

This work is particularly valuable for several reasons. First of all, it is based on previously existing standard and commonly accepted frameworks in Europe and in the education field, e.g. the European e Competence Framework (e-CFv3.0) and the Bloom Taxonomy, the European Skills, Competences, Qualifications and Occupations (ESCO). Secondly, it considers the organizational context and the actual Data Scientists profiles and activities. Finally, it is a very recent project – a working paper, in fact which is carried out by seven partners across Europe, with the funding of the EU Horizon 2020 Program.

For the purpose of our study, we focused on the Data Science Competence Framework and on the Data Science Professional profiles. The CF-DS is built upon the list of 161 competencies, skills and knowledge the authors have listed. Each of the competence is connected to a group or cluster of competence, in order: Data Analytics (DSDA); Data Science Engineering (DSENG); Data Management (DSDM); Research Methods and Project Management (DSRM); Domain related Competences (DSDK): Applied to Business Analytics (DSBA). On the other side, the DSPP describes the professional family of Data Science and their related organizational roles, which is composed of 22 elements. A matrix, which connects the competence groups to the proposed profiles, founds the database of our work. It is shown in Image 1. Each cell contains a value, from 1 to 5, which is “the suggested ranking of relevance of different competence groups to corresponding Data Science profiles” (EDISON, 2017).

Image 1. The matrix competence groups - profiles

Profile ID	Data Science Profile title	Data Science Competences Groups (relevance 1 - low, 5 – high)				
		DSDA Data Analytics	DSDM Data Managem ent	DSENG Data Science Engineering	DSRM Data Research Methods, Business methods	DSDK Subject Domain
Managers						
DSP01	Data Science (group) Manager	3	4	3	3	2
DSP02	Data Science Infrastructure Manager	2	4	4	2	2
DSP03	Research Infrastructure Manager	2	4	4	3	2
Professionals						
DSP04	Data Scientist	5	3	4	5	3
DSP05	Data Science Researcher	4	3	2	5	4

Source: EDISON, 2017, Table 5, pp. 20.

This does not mean that each competence belonging to that cluster (e.g. DSDA) has consequently the same value: a professional profile is the combination of some knowledge, skills and competence which can belong to different cluster. However, as the data are still lacking, we have assigned the same value for each indicator. The skills and the knowledge indicators were assigned with the value “0”, as there are not any information about those ones. The resulting matrix, before the values were normalized, is structured in this way: each line represent a single indicator (a knowledge, a skill or a competence), related to its cluster; each column represents a role; the cell is the intersection of a role with an index value. The details about the indicators, the clusters and the roles could be found in the papers released from EDISON (2017). In the Table 1, below, we offer a sample to show the readers how the data have been organized: in particular we describe the intersection between the “Manager” cluster and the competence indicator DSDA01. In the Annex A, Table 1A, the reader could find the complete list of professional profiles related to Data Science we used as source of data.

Table 1. The indicators' matrix: a sample

ID GROUP	GROUP	ID INDICATOR	CATEGORY	COMPETENCE	MANAGER		
					Production and specialized services managers		
					Data Science Services/Infrastructure Managers		
					DSP01	DSP02	DSP03
					Data Science Group Manager	Data Science Infrastructure Manager	Research Infrastructure Manager
DSDA	Data Science Analytics	DSDA01	Competence	Effectively use variety of data analytics techniques, such as Machine Learning (including supervised, unsupervised, semi-supervised learning), Data Mining, Prescriptive and Predictive Analytics, for complex data analysis through the whole data lifecycle	3	2	2

Source: Elaboration of the author of the data produced by EDISON in the papers, Release 2, v0.4, 3 July 2017.

2.2. The Kohonen map

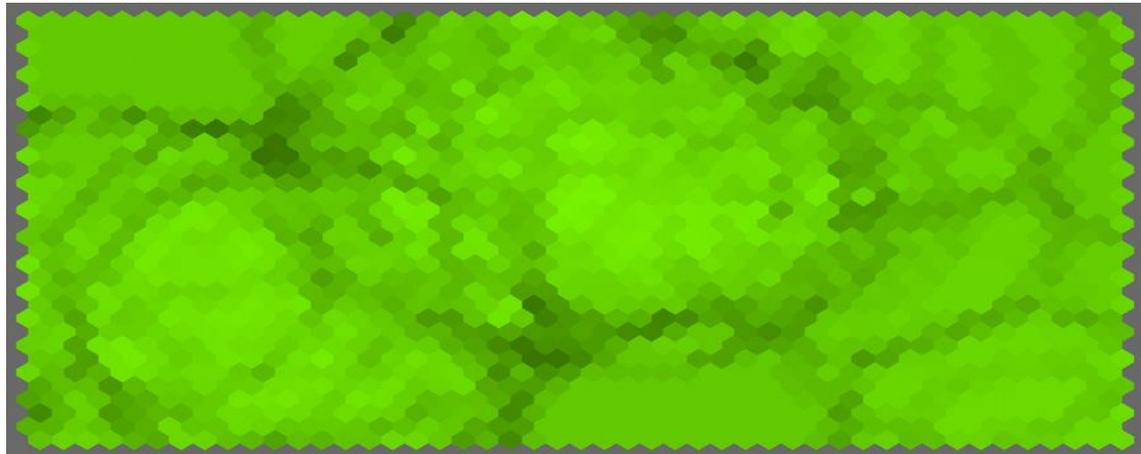
A Self Organizing Map (SOM) or Map of Kohonen is a non-supervised artificial neural network developed by Kohonen (1990). It simulates some brain functions (as the ability to process visual information) in order to classify a large amount of data: the Kohonen map goes through an adaptive transformation of multidimensional input signals into two or three dimensional topological maps. The goal is to identify the structural features of incoming data and underlying their properties having no information about the expected output analysis - as in the case of supervised learning.

Then we connected this list of 30 competences (a subset of skills to which the values were assigned), skills and knowledge to the professional profiles identified by the authors: for each of them we assigned a proficiency level. Therefore, we configured the neural architecture, connecting the 30 input neurons with a two-dimensional map and setting the synaptic weights randomly. Finally, we trained the map with these parameters:

- QE for training data: 0,585704684257507
- TE for training data: 0,0454545468091965
- QE for acceptance data: 0,585704684257507
- TE for acceptance data: 0,0454545468091965

Below, the final Kohonen Map after training (47 x 32 neurons = 1504 neurons) is shown (Image 2). It can be seen as a “smart picture” of the Data Scientist galaxy according to the 30 reference skills.

Image 2. The Kohonen Map after the training



Source: Elaboration of training data from the authors with the software SOM Analyzer data, Version 1.02a).

2.3. The structured interviews

As we consider the EDISON project the benchmark for the definition of competencies, we have compared the early results of the study with the organizational context.

The financial institution we have chosen is a big multinational corporation with several offices in Italy. We had the opportunity to conduct 5 interviews with the main Area Manager related to the “Data Science” topic and to collect the documents they have provided. For privacy reasons, both the name of the financial institutions and the spokespersons are confidential.

The interviews have been conducted *vis-à-vis* under a privacy agreement. These are the functional roles they have:

- Human Resource Business Partner
- Human Resource Data Office

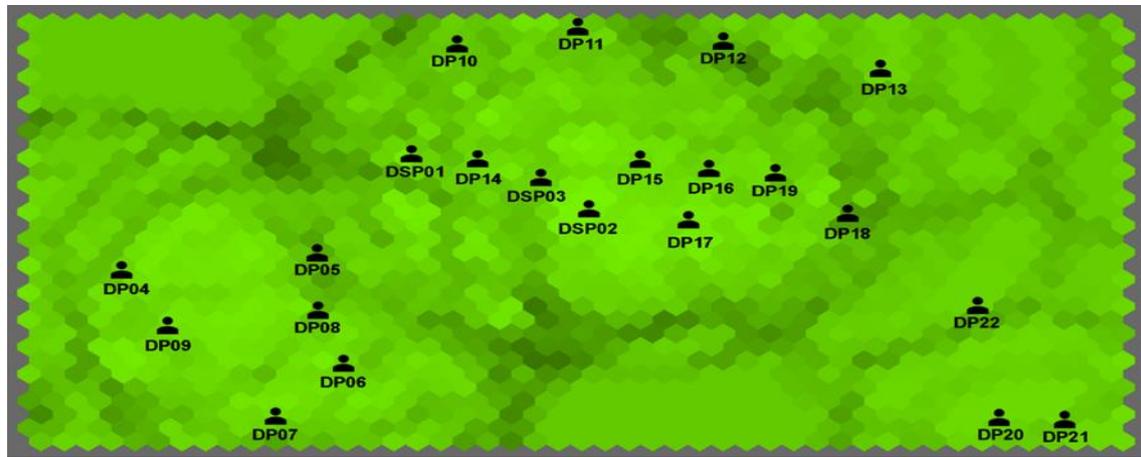
We focused the interview on two main issues: the actual situation of that bank in defining the professional figures related to Data Science and the comparison with the model. Therefore, in a first phase of the research we have collected their experiences and practices in the organization. Then, we proposed them the EDISON model about the professional family to confront with. In the Annex A, Table 1, the draft used by the authors during the interviews.

3. Results

3.1 The Kohonen Maps

We have analysed the maps elaborated with the according the Software SOM Analyzer according two main criteria: the distribution of the profiles (homogeneity vs. heterogeneity) and the distribution of the competences. First of all, we can visualize the 22 Data Scientist profiles and their position in the map: the Image 3 shows the distribution of the profiles obtained by the EDISON Reports.

Image 3. The Distribution of the 22 profiles in the Kohonen Map



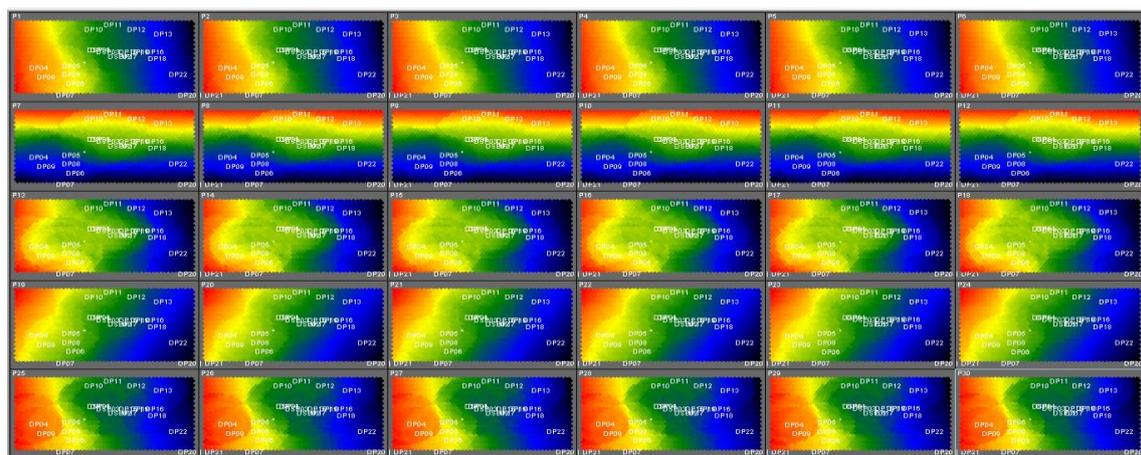
Source: Elaboration of the acceptance data from the authors with the software SOM Analyzer data, Version 1.02a.

The distribution of profiles in the map highlights three points:

1. The job profile of the Data Scientist is declined in a wide range of variations;
2. Some profiles show greater affinities, such as to suggest professional clusters. Others are separated profiles;
3. There is no single Data Scientist profile, but a varied professional family.

Secondly, we have analysed the intensity variations of each individual competence, which are shown in the map below (Image 4). As the data from EDISON were not completed, we managed to analyse only a small portion of the dataset, a sample of 30 competences.

Image 4. The Kohonen Maps representing the details of the profiles



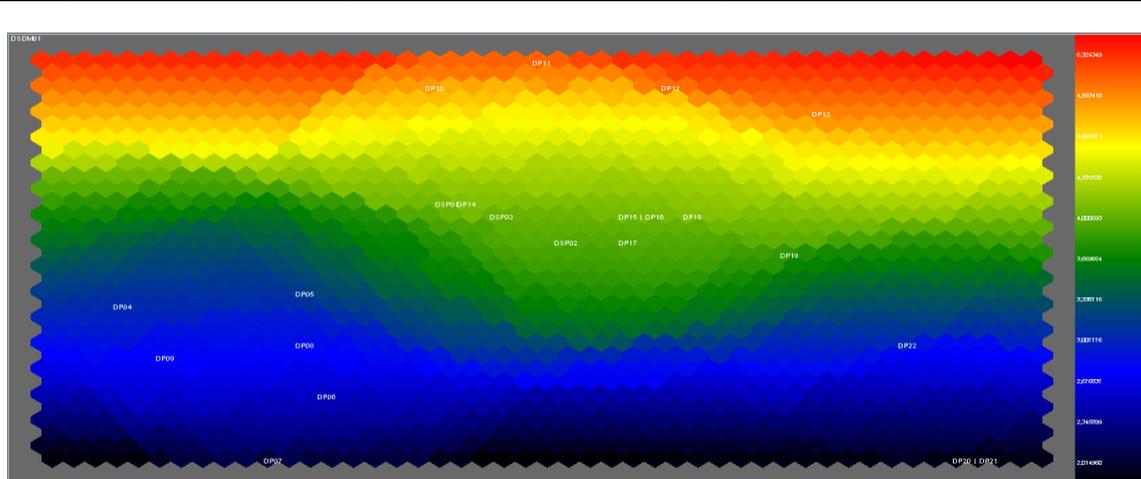
Source: Elaboration of the data, representing the sample 30 competences, made by the authors with the software SOM Analyzer data, Version 1.02a.

The colors represent the level of intensity of the competence (black = 0, red = 100%) and show a high degree of variation and diversification of the mix of skills of each job profile.

The lack of homogeneity between the various profiles emerges significantly if we analyse the intensity variations of each the 30 individual competence in the Kohonen maps.

We offer two examples of the competences maps, which are shown below. As we can see, in the case of the competence DSDM01 - "Develop and implement data strategy, in particular, in the form of data management plan and data management plan (DMP)" (Image 5) - the image shows a strong concentration of competence only at the top of the map of Kohonen. This may mean that this competence is relevant only for a limited number of professional profiles (those located above in the map).

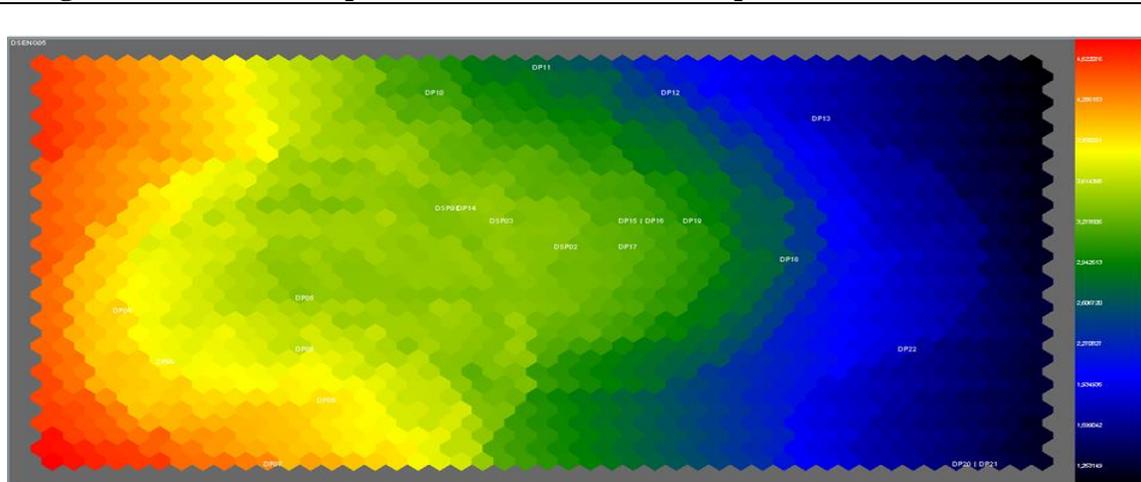
Image 5. The Kohonen Map: detail of the DSDM01 Competence



Source: Elaboration of the data, representing a competence, made by the authors with the software SOM Analyzer data, Version 1.02a.

On the other hand, the distribution of the competence DSENG05 - "Consistently apply data security mechanisms and controls at each stage of data processing, including data anonymization, privacy and IPR protection" (Image 6), suggests that this competence may be distinctive only for a job profile, DP07.

Image 6. The Kohonen Map: detail of the DSENG05 Competence



Source: Elaboration of the data, representing a competence, made by the authors with the software SOM Analyzer data, Version 1.02a.

3.2. Qualitative analysis

3.2.1. The organization context of the bank

On one side, the presence of Data Scientist in the bank, is the result of the digitalization of the organization, with the need to handle this huge amount of data. But, above all, the way a Data Scientist is described, trained and managed in this financial institution, is the answer to the regulations and laws imposed by the different supervisory boards (as the Basel Committee). This is remarkable in defining the professional figure: most of the decisions and the choices made by the HR Department are not related to the strategy, as it should be, but to the Bruxelles standards.

Historically, the Data Scientists have always worked all over the organization, with the purpose to manage the process between the data and the information. During the last year, they moved to a central function called “Data Office”: this is why, the importance of controlling and certificating the data is growing.. There are several Data Offices in which the professionals are employed. The persons who collaborated with us in this research focused on two main departments: 1. The Risk Data Office Department and its subdivision in three units: the Credit Risk Mis Unit, the Wide Credit Risk Platform Unit and the Italy Credit Risk Data Business Partner Unit; 2. The Data Governance & Data Quality Office. The bank it is working to improve the quality of their data, on one side, and to use the data science competence to manage the credit risk and to comply with the regulations.

3.2.2. The bank professional figures

While the model offered by EDISON is very detailed and it is possible to identify 22 professional figures, for this bank the situation is quite different. There is a main separation between “generalist” and “specialists” which differ for the tool used, the competences and the market sector they use the data for. This has some consequences on confronting with the model. For instance, there is not a clear separation between the Data Science Professionals and the Data Handling Professional categories, because these types of activities are strictly related and could not be delegated entirely to another professional. Then, Data Stewards are considered fundamental in the whole system as they are involved in different phases of the “data cycle”, from the “data collection” to the “storage”.

There is not such a figure as the “Data Scientist”: the role of data scientist is not linked to a single professional figure, but to it is a Team Work that shares the goal and the activities described by EDISON: “(...) to find and interpret rich data sources, manage large amounts of data, merge data sources, ensure consistency of data-sets, create visualisations to aid in understanding data. Build mathematical models, present and communicate data insights and findings to specialists and scientists, and recommend ways to apply the data” (EDISON, 2017, pp. 17).

3.2.3. Competences: The data governance office

What kind of competences should a data scientist in a bank have? As there is not a strategy beyond the definition of the professionals and their competences, currently the profiles are customized on those ones that have been working in the bank for years. The processes are adapted to the current employers and their competences they have been built during their career path. Therefore, we could not collect any job descriptions or find an HR model the bank is currently using to take decisions about their “data scientists”. Generally, the persons interviewed agreed on 5 groups of skills a professional employed in the Data Office Governance should express. We report them below as they are described:

- Business Skills: for understanding business, finding opportunities, prioritizing, building the vision and roadmap.
- Communication & negotiation Skills: for effective collaboration, cross-department collaboration, create momentum, cultural change, creation of steering committees and stakeholder groups.
- Process and Management Skills: for effective change, implementing new processes, defining new data models, setting timelines.
- Data Science Skills: for managing expectations, evaluating opportunities, understanding challenges in driving business value but not for implementation.
- Technology Skills: for defining possibilities, evaluating innovative technological choices, understanding limitations, but not for programming.

3.2.4. Learning path for data governance professionals

Finally, the bank it is designing a learning path for those who are working in the Data Governance Office and that will be designed and launched in 2018: However the program, it is missing and we can highlight just a few directions the course will take. We have compared these topics – considered as competences - with the EDISON model, to define the groups of competences they belong to. The Data Management competence group it is the most frequent. The table below shows the results of the comparison:

Table 2. Comparing data governance themes with EDISON model

BANK LEARNING PATH THEMES	EDISON MODEL	
	ID	GROUP
Text Mining	KDSDA04	Data Science Analytics
Data Quality	KDSDM06	Data Management
Data Architectures	SDSDM04	Data Management
Metadata Mapping	SDSDM08	Data Management and Curation Platform
Data Architectures	KDSDM04	Data Management
Machine Learning	KDSDKA01	Data Science Analytics
Data Visualization	DSENG01	Data Science Engineering
Project Management	KDSRM06	Scientific and Research Methods for research domain and Business Process Management
Data Source	DSDM02	Data Management

Source: Data elaborated from the authors representing the comparison between the EDISON Model and the Learning Path Themes developed by the Bank.

4. Discussion

4.1. Qualitative Analysis

Even if the EDISON model has been developed in a European context and it has to be applied in the specific context, the results show that there is a general agreement on the professional profiles description and categorization done by the authors. In some case, two categories may correspond to only one and this may depend on the fact that Data Science it is a developing skill of the organization and some activities are not so much specialized. Then, it is clear that Data Scientists have to communicate with their colleagues to accomplish their goals and to fill the gap of knowledge or skill they lack of. Data Scientist should always act as a “bridge” and, consequently, this led us to consider the importance

of communication skills to complete the profile. Data Stewards have been considered the central and most important figure in data science family: this may depend on the fact that Data Stewards operate in different moments of the data cycle: data ingest phase, in the results, in data visualization, reporting and storage, in data collection.

4.2. Kohonen Maps Analysis

Even if we have analysed only a small sample of the whole competence lists, we can notice that the profiles are different from each other. This may strengthen our hypothesis: “Data Scientist” is not a monolithic professional figure, but an idea that can express a wide range of professional profiles working in the field of data management and various business processes.

Going deeper in the analysis of the competences, we can see that some profiles are very similar and appear close to each other in the map, while others are very different and far from each other.

The non-homogenous distribution is very important and it could be explained in three ways: 1. The diversity is related to the variety of the business processes of the organization, which are different from each other. This may mean that the data developed by EDISON have been built starting from a study of the organization processes and not from the theory - a list of academic competences, for instance; 2. The ability to manage the data in a complex organization requires a variety of competences that identify figures which are different from each other. There is coherence between the job description and the real activities of an organization; 3. Despite the heterogeneity, the profiles are well allocated: there are not profiles which are at the edge of the map or in the center of it. This is a very useful consideration for our research: even if we have depicted an “ideal” company, the images show a realistic organization of the work. As companies will have the need to select new professional figures to manage the data, it is important that they could be integrated easily in the pre-existing environment.

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ANNEXES

ANNEX A

Table 1A. List of professional profiles related to Data Science

Cluster 1	MANAGER
	Data Science (group) Manager
	Data Science Infrastructure Manager
	Research Infrastructure Manager
Cluster 2	PROFESSIONALS
	Data Scientist
	Data Science Researcher
	Data Science Architect
	Data Science Application Programmer
	Data Analyst
	Business Analyst
Cluster 2.1	PROFESSIONAL (DATABASE)
	Large scale database designer
	Large scale database admin
	Scientific database administrator
Cluster 2.2	PROFESSIONAL (DATA HANDLING/MANAGEMENT)
	Data Stewards
	Digital data curator
	Digital Librarians
	Data Archivists
Cluster 3	TECHNICIAN AND ASSOCIATE PROFESSIONALS
	Big Data facilities Operator
	Large scale data storage operator
	Scientific database operator
Cluster 4	SUPPORT WORKERS AND DATA HANDLING CLERKS
	User support workers
	Data entry clerks
	Data entry field workers

Source: EDISON, 2017, pp. 16.

ANNEX B

Table 2A. List of questions for the interview	
Section 1 – Data Science in Banks	
ID	Question
1.1	Why Data Science is so important for the banks today?
1.2	Can you define the figure of the Data Scientist for the bank?
1.3	Which are the main reasons why a Data Scientist is employed in a bank?
Section 2 – The « Data Scientist » profile	
2.1	How did you build the data scientist professional profile?
2.2	Do you have a job description of the knowledge, the skills and competencies related to the Data Scientist?
2.3	In which functional area of the bank the Data Scientist is currently involved?
2.4	Do you believe every data scientist of each area share some competence in common with their colleagues?
2.5	What competence, knowledge or skill may discern between Data Scientists belonging to different areas?
Section 3 – The benchmark	
3.1	Did you refer to any scientific model to create the different professional figures?
3.2	Do you believe you can take advantage of a benchmark model in defining the Data Scientist profile?
3.3	Have you ever heard about the EDISON Project?
Section 4 – Comparing with the model	
4.1	These are the professional figures depicted by the authors of EDISON. What kind of similarities can you find with the model?
4.2	What kind of similarities can you find with the EDISON model?
Source: Original list of questions elaborated from the authors	

RAUSHAN AMAN¹

FEMALE ENTREPRENEURSHIP IN EMERGING MARKETS: MOTIVATIONAL FACTORS BEHIND THEIR DECISION

Abstract

Women is an invaluable source of current market development. 1/3 of worldwide organizations are occupied by female entrepreneurs. It means that most of the constrains, which existed in the past century in the form of heavy tax impositions and complicated legislation system, have been removed and/or their effect has been minimized. This paper provides theoretical review of motivational factors behind female entrepreneurs' decision to start and/or maintain new or their existing startups in emerging markets. Variety of factors drive women to start and/or maintain their businesses in emerging markets. In some countries female entrepreneurs' decision to start their own ventures and/or stay and maintain their businesses in the market are driven by factors that come out of the necessity such as the need for additional income and flexibility, whereas in other countries women decide to start their own businesses or maintain their existing ventures due to factors that give them additional opportunity such as independence and autonomy.

Keywords: Female entrepreneurship, emerging markets, push and pull motivational factors

JEL Codes: L26

1. Introduction

Entrepreneurship is one of the hot topics researched by different scientists. Entrepreneurship is defined as “the process by which individuals pursue opportunities without regard to the resources they currently control” (Gartner, Carter, & Reynolds, 2010). In the past century even though both men and women possessed the same resources and held the same degrees, it was an obvious fact that there had been a gender bias in entrepreneurship. Women's participation rate in entrepreneurship was much lower than man's part in it (Baycan Levent, Masurel, & Nijkamp, 2003). It was especially true for the world's underdeveloped and developing countries. “Recent evidence shows that prevalence rates of female entrepreneurship tend to be relatively higher in developing than in developed countries” (Langowitz & Minniti, 2007).

Rapidly increased significance of female entrepreneurs and the rising interest of scholars in this research field had been noticed in the last 30 years. If the research in 1970s and 1980s was focused on the gender inequality in entrepreneurship (Greene, 2007), scholars of 1990s claim that accelerated participation of women in entrepreneurship field was explained by feminist theories (Marlow & Patton, 2005). In 2000s female entrepreneurship was analyzed in the labor market as a source for employment opportunities (Schindehutte, Morris, & Brennan, 2003). Reynolds (1993) states that entrepreneurial life cycle should pass through 4 stages such as “the conception phase, where it realizes an opportunity to start a business, the gestation phase, when opportunity is assessed, adolescence phase and closure stage” (Minniti & Naudé, 2010; Reynolds, 1993). Female entrepreneurs face certain constraints at each stage. According to Andriuta et al (2013), female entrepreneurs are not provided proper conditions for their start-ups, the barriers exist in the form of heavy tax impositions and sophisticated legal system.

Andriuta et al (2013) depicts that despite the obstacles that women face to start their businesses, they have some positive motivation to do it. If in developing countries main motivation for female

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entrepreneurs consists of intrinsic factors such as feeling themselves independent and doing good for the society, “in transition economies women are opting for self-employment out of necessity” (Andriuta & Kartašova, 2013). With given intrinsic and extrinsic motivations, the proportion of female entrepreneurs in developing countries has grown. Support programs of national governments, local and international public and private institutions, business associations and knowledge institutions promoted the accelerated development rate of female entrepreneurs. These institutions help women to enhance their entrepreneurial knowledge, strengthen female networks, provide training to increase their start-up skills and financially support women’s entrepreneurial initiatives (Minniti & Naudé, 2010). Therefore, it is fair to say that favorable institutional environment is one of the motivational factors that drive female entrepreneurs to start and/or maintain their businesses. However, except the proper institutional environment, there are many other factors that encourage female entrepreneurs to start and/or maintain their enterprises. The aim of this paper is to provide theoretical review of the motivational factors that drive female entrepreneurs to start and/or embed their businesses in emerging markets. The paper starts with an overview of the barriers facing female entrepreneurs worldwide and particularly in emerging markets. Thereafter, the author distinguishes and explains “Push” and “Pull” motivational factors’ concept, and provides theoretical review of the motivational factors that encourage female entrepreneurs in emerging markets to start and/or maintain their businesses.

2. Obstacles to success of female entrepreneurs

2.1. Barriers hindering female entrepreneurs’ activities

Minniti and Naude (2010) designates women as “untapped source” for increased economic welfare of a society. Some researchers even claim that currently female entrepreneurs’ contribution is even higher than male entrepreneurs’ input into their startups. However, despite the favorable conditions and support provided to female entrepreneurs, their proportion of business ownership is still lower than male entrepreneurs’ share in small and medium businesses, and they tend to fail more than male business executives (Minniti & Naudé, 2010). High failure rate of female entrepreneurs can be explained by women’s inability and incompetence to deal with the barriers that they face in their way of doing a business.

Bhardwaj (2014) claims that high level education is one of the main sources of innovative entrepreneurial ideas, and training and professional upgrade also positively influences entrepreneurial activities of women, but quite often female entrepreneurs lack time and financial resources to have this courses (Rauth Bhardwaj, 2014). Lituchy and Reavley (2004) agree with Bhardwaj (2014) and claim that female entrepreneurs face the problems of funding, researchers also point out that attraction of clients at an early phase of women’s startups is one of the frequent problems (Lituchy & Reavley, 2004). Holmen et al (2011) agrees with this view, and state that in Afghanistan female entrepreneurs have low entrepreneurial drive due to certain constraints such as financial problems that they face at business startup phase, and obstacles such as lack of contacts and networking that they encounter at ongoing phase of the business. Moreover, Afghan people have negative social attitude and low acceptance level of women-owned and managed enterprises (Holmén, Min, & Saarelainen, 2011).

In contrast, Welter (2004) state that although German female entrepreneurs are provided with proper political and societal environment, there are some shortcomings in those institutions that limit entrepreneurial interest and entry of women into the business (Welter, 2004). The opposite case can be noticed in China, which is an emerging market at its mature stage. Chinese female entrepreneurs, despite being younger than their male counterparts, are provided with favorable institutional environment in the form of developed training centers and capital opportunities (Deng, Wang, & Alon, 2010). Iakovleva et al (2013) claim that although there are several funding opportunities to female entrepreneurs in Russia and Ukraine, it is very difficult to comply with the requirements and meet the stated conditions by

financing institutions (Iakovleva, Solesvik, & Trifilova, 2013). Therefore, even though if women are offered variety of opportunities to start a business, difficulty of complying with the requirements of the institutional environment that offer the opportunities is another problem that female entrepreneurs face both in emerging markets and in developed countries.

In certain countries with emerging economies even though if women comply with the requirements of the institutional environment, social norms and values dominating in that region don't allow women to properly benefit from the opportunities offered by those institutions. Aidis et al (2008) provided empirical research on female entrepreneurship in Lithuania and Ukraine, which are both post-soviet union countries with transition economies, and found out that "though formal institutions such as rules and regulations allow for the possibility of female business development, informal institutions such as gendered norms and values that reflect the patriarchy observed during the Soviet era restrict women's activities and their access to resources" (Aidis, Estrin, & Mickiewicz, 2008).

This section looked through the barriers that female entrepreneurs face at different stages of the business. Most common problems that women face in their way of doing business is a lack of entrepreneurial knowledge, insufficiency and difficulty of getting finance, lack of networking and institutional environment with its strict requirements. In addition to those obstacles, in certain countries with emerging economies societal norms and values hinder women's roles and restrict their activities in business. Female entrepreneurs in certain emerging markets face the problem of operating in a market economy such as difficulty of attracting clients at a startup phase of the business. Despite the barriers discussed above, female entrepreneurs in emerging markets still have some motivation to start and/or maintain their businesses. The next two sections describe types of motivations that encourage women to engage in entrepreneurship field, and factors that drive female entrepreneurs to start/maintain their business in emerging markets.

3. Motivations of female entrepreneurs

3.1. "Push" and "Pull" motivational factors

Wide range of motivations push women to start their own ventures, and/or influence their decision to switch from hired employee to independent female entrepreneur. Langan-Fox and Roth (1995) groups female entrepreneurs into three types based on their psychological motivation. The first group is the need achiever entrepreneur, who strives for the result's assertively. The second group of female entrepreneurs are managerial entrepreneurs, who get satisfaction from power and influencing others. The last group is the pragmatic entrepreneurs, who has moderate need level for both power and achievement (Langan-Fox & Roth, 1995).

Earlier research has identified that there can be "pull" and "push" motivational factors that may lead women to start their own ventures (Buttner & Moore, 1997; Hughes, 2003). If "pull" factors include self-actualization elements such as the need for independence and achievement (Bennett & Dann, 2000), "push" factors are the negative motivational elements that come out of necessity such as need for work-home balance and lack of promotion at their previous working places (R. Hisrich & Brush, 1985). Fielden and Davidson (2005) has summarized previous research on "push" and "pull" motivational factors, and came up with the following table of push and pull encouraging factor elements (Fielden & Davidson, 2005).

Table 1. “Push” and “Pull” motivational factors

Factors that drive the success of female entrepreneurs	
“Push” factors	“Pull” factors
Lack of opportunities	Impact on strategy
Lack of attention by the owner	Realization of personal growth
Opportunity to do more	Receiving acknowledgements
Racism	Need for major results
Limited education	Revenue generation
Lack of good example	Use of experience, knowledge, skills
Unequal payments	Dream realization
Division of the profession	Achievement
Lack of childcare	Stages of the lifecycle
Discrimination	Feeling of personal values
The need for society	Need for dominance

Source: Fielden and Davidson (2005, p. 266).

Amabile (1993) names “pull” motivational factors as intrinsic motivators, whereas “push” motivational factors as extrinsic motivators. He claims that “extrinsic motivation is most likely to combine synergistically with intrinsic motivation when the initial level of intrinsic motivation is high” (Amabile, 1993). The proof of this statement can be the result of Lee (1996)’s exploratory research results’, where he found out that the need for achievement and need for dominance had highly motivated female entrepreneurs to start their ventures, whereas need for affiliation and need for autonomy had moderate influence to female entrepreneurs in their journey of creating their startups (Lee, 1996). McGowan et al (2012) claims that female entrepreneurs are motivated by both “push” and “pull” factors to start their own businesses (McGowan, Redeker, Cooper, & Greenan, 2012). Sarri and Trihopoulou (2005) agrees with this view and says that “push” and “pull” motivational factors equally force women to start their ventures (Sarri & Trihopoulou, 2005). However, the researches provided on female entrepreneurs’ motivation in different countries show different results, meaning that if in certain countries female entrepreneurs are motivated by “push” factors, in other countries women are motivated by “pull” factors, whereas in some countries both “push” and “pull” motivational factors equally influence women’s decision to start and/or maintain their businesses. The next part of the paper proves this statement and discusses factors that encourage female entrepreneurs in emerging markets to start and/or maintain their businesses.

3.2. Motivational factors of female entrepreneurs in emerging markets

Previous research on female entrepreneurship was mainly focused on developing countries, and many scholars agree on the point that in highly developed countries female entrepreneurs are mainly motivated by opportunity-based “pull” motivational factors. Hughes’(2003) research on Canadian female entrepreneurs has similar results, meaning that Canadian female entrepreneurs are mostly encouraged to start their own businesses by “pull” motivational factors rather than “push” motivational factors (Hughes, 2003). Bennet and Dann (2000) state that most of the Australian female entrepreneurs decide to start and/or maintain their own businesses in order to get self-independence and achieve self-actualization (Bennett & Dann, 2000).

However, female entrepreneurs' case in emerging markets differ from the women entrepreneurs' situation in developed countries. If in certain countries with emerging economy female entrepreneurs are motivated by opportunity-pulled factors, in other emerging markets women decide to engage in business out of the necessity-pushed factors. For example, Itani et al (2011) investigated that there is a "pull" motivational factors such as a need for achievement and self-fulfillment behind Arabian female entrepreneurs (Itani, Sidani, & Baalbaki, 2011). Dechant et al (2005) agree with this view, and state that most of the female entrepreneurs living and operating in Bahrain and Oman were driven by "pull" motivational factors such as self-actualization and opportunity due to the reason that most of them had high education-levels and good economic status (Dechant & Lamky, 2005). Hisrich et al (1999) examine Turkish entrepreneurs and find out that the strongest motivators for female entrepreneurs are independence and achievement, whereas the weak motivators are job satisfaction and economic necessity (R. D. Hisrich & Ayse Öztürk, 1999). Lituchy and Reavley (2004) claims that the dominating motivational factor among female entrepreneurs in Poland and Czech Republic was also the need for achievement, and most of those female entrepreneurs were characterized as risk-taking and self-confident people (Lituchy & Reavley, 2004).

Andriuta and Kartosova (2013) claim that if in developing countries main motivation for female entrepreneurs consists of intrinsic factors such as feeling themselves independent and doing good for the society, "in transition economies women are opting for self-employment out of necessity (Andriuta & Kartašova, 2013). Chu (2000) proved Andriuta and Kartosova (2013) 's view by providing study among female entrepreneurs in Hong Kong working in a fashion sphere and figured out that the main driving forces for women to start their businesses were intrinsic motives such as achievement, job satisfaction and independence rather than the extrinsic motives such as security and economic necessity (CHU, 2000). However, Deng et al (2010) has an opposite view regarding Chinese female entrepreneurs, they claim that Chinese female entrepreneurs decide to start or maintain their existing businesses due to "poverty push" rather than "opportunity pull" motivational factors (Deng et al., 2010). From Chinese case of female entrepreneurs' motivation, we can notice that women's motivation to do business has changed throughout the time. Proof of this statement is Gadar and Yunus (2009)'s research, where they argue that in the past Malaysian female entrepreneurs' decision to start and/or maintain their businesses were driven by the factors such as family and additional income needs, whereas the need for self-achievement, social networking and favorable economic environment such as technology and information are the main driving forces to start a business for current Malaysian female entrepreneurs (Gadar & Yunus, 2009).

Most of the above discussed researches on female entrepreneurs' motivation argue that women's decision to start and/or maintain their businesses in emerging markets are mainly driven by opportunity-based "pull" motivational factors. However, not all female entrepreneurs operating in emerging markets are encouraged by opportunity based "Pull" motivational factors, but some of them are also motivated by necessity-based "push" motivational factors. For instance, Tambunan (2009) found out that majority of the women in Asian developing countries are motivated by "push" factors, which come out of the necessity, to start their own businesses (Tambunan, 2009). Terjesen and Amoros (2010) agrees with this view and claim that female entrepreneurs' activities in Latin America and Caribbean are mostly necessity-based rather than the opportunity-based. The reason is because for female entrepreneurs living there it is very difficult to get funding and take a help from different institutions (Terjesen & Amorós, 2010).

Sometimes female entrepreneurs' decision to start and/or maintain their business are not only influenced solely by either "Push" or "Pull" motivational factors, but rather they are impacted by synergistic influence of both "Push" and "Pull" motivational factors. Holmen et al (2011) provided research among female entrepreneurs in Afghanistan, and found out that Afghan female entrepreneurs are mainly motivated by both "push" factors such as economic necessity, and "pull" factors such as desire for

independence and autonomy. Based on discussed researches on female entrepreneurs' motivation in emerging markets, it is fair to say that in certain cases women's decision to start and/or maintain their business in emerging markets depends on either "Push" or "Pull" motivational factors, whereas in some countries with emerging economies women's decision to start and/or maintain their business can be affected by synergistic influence of both "Push" and "Pull" motivational factors.

4. Conclusion

Female entrepreneurs are one of the driving forces of current market development. Despite the obstacles that they mostly face at an early stage of their businesses, they still have a motivation to proceed with their enterprises. This theoretical paper analyzes the main motivation of female entrepreneurs in emerging markets by comparing it to female entrepreneurs' motivation in developed countries. Previous research on female entrepreneurship has found out that women in developed countries are mainly influenced by opportunity-based "Pull" motivational factors rather than necessity-based "Push" motivational factors. However, the research on female entrepreneurs in emerging markets show different result. If female entrepreneurs' in some countries with emerging economies, which are very close to developed countries' stage such as China, are mainly motivated by opportunity- pulled factors such as need for self-independence and achievement; female entrepreneurs in other emerging markets, which are close to developing countries' stage such as Asian developing countries, are mostly motivated by necessity-pushed factors such as work-home balance and need for additional source of income.

However, accepting the fact that female entrepreneurs in emerging markets can only be affected by either "push" or "pull" motivational factors to start and/or maintain their existing businesses will be a misperception. Sometimes, in some emerging market countries female entrepreneurs decide to start and/or sustain their existing enterprises due to the synergistic influence of both opportunity-based "Push" and necessity-based "Pull" motivational factors.

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INTERACTION BETWEEN INTEREST AND IDEOLOGY IN IRAN'S FOREIGN POLICY

Abstract

Iran is seeking to reconcile the two variables of interest and ideology in its foreign policy which puts obstacles, in some cases, to the understanding of this policy.

This is partially due to the existence of political movements that adopt different attitudes and insights of some of the foreign policy issues such as the relations with the neighboring countries, and is also due to the impact of some external developments on the Iranian foreign policy-making decision process.

The nuclear agreement reached by Iran and the five permanent members of the Security Council plus Germany "P5+1" group in July 14, 2015 is an example of the pragmatic policy that it follows, which at the same time, has not diminished the importance and influence of the ideological variable in the decision-making process.

Keywords: Foreign policy, decision-making process, nuclear agreement, interest, ideology, political movements

JEL Codes: F50

Introduction

Iranian foreign policy-making decision is a complicated process due to the significant overlap between the two variables of interest and ideology which imposes many difficulties when analyzing Iran's attitudes towards urgent developments on the regional and international arenas as well as to predict trends of Iranian handling with it.

This is especially in the light of the escalating conflict between top institutions inside the regime of the Islamic Republic where some call to benefit from the interest variable, while others emphasize the need to adhere to the framework determined by the second variable, through the implementation of teachings of Imam Khomeini, leader of the revolution and founder of the Islamic Republic and through the application of the constitution, as well as the commitment to the belief grounds of the political system, especially "Vilayat- e Faqih".

But there are three points must be taken into account in this context; **The first point** is that this conflict between the top institutions in the system was not zero level, which means that the width of the influence of some institutions did not mean the absence of other one's effect. This is also applies to the conflict between the two variables of ideology and interest, in the sense that the growing influence of one of the two variables does not mean that the other variable no longer has a role in the foreign policy decision-making process due, primarily, to the Iranian political system's keenness from the beginning not to let one political movement dominates the decision-making process.

Hence, the process of determining foreign policy directions was not subject to the dominance of a single variable only, as it seemed that there was a double impact of the two variables on the foreign policy,

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though it does not negate the fact that the influence of one of the two variables may be declining relatively in favor of the other one, which depends mainly on two specific directions:

1- The continuous change in the balance of the internal political forces in a way that is leading to the expansion of the influence of some institutions and political movements at the expense of other institutions and movements.

2- The nature of the foreign threats Iran faces, where it was clear, that the more escalated threats, for example the military intervention, the more Iran is prompted to make a change in the balance of internal political forces, in a way that leads to the change in the effect of the key variables in the Foreign policy decision making. Perhaps we can say that the negotiations conducted by Iran with the "P5+1" group, which ended with the nuclear agreement in July 14, 2015, provides a clear example of this.

Threats imposed by the crisis, such as international sanctions, which have caused an unprecedented economic crisis was reflected in a rise in unemployment, inflation and poverty, and the increasing potentiality of military strike of Iran's nuclear facilities by the United States or Israel or both together, all this pushed Iran to make changes in the balances of the internal forces which have led to a shift in Iran's foreign policy in a way is finally allowed to reach the nuclear agreement that ended the crisis.

The system of the Islamic Republic of Iran has begun to make it's change when President Hassan Rouhani, who belongs to the moderate wing of the conservative movement, which communicates with the reformist movement, came to power by winning the 2013 presidential elections where he competed with candidates of the ultra-conservative movement, who dominated, in that period, many institutions within the system.

Rouhani's wining of the presidential elections has led to a change in the foreign policy decision-making process towards launching new initiatives to reach a peaceful settlement to the nuclear program crisis, eventually came to reality, when Iran and "P5+1" group reached the nuclear agreement in July 14, 2015.

Ali Khamenei, the Supreme Leader of the Islamic Republic, has pointed out that the interest factor is pushing Iran to make a change in its foreign policy, towards participating in the negotiations with the United States and reaching a final agreement with the "P5+1" group. Iran's interest lies, in this context, in lifting the imposed international sanctions that put more pressure on its economy as well as avoiding the option of a war with the United States or Israel. Khamenei, in this context, has said: "in some exceptional cases, like the nuclear case, and due to expediency, we may negotiate."()

With no doubt, such statement raises an important significance that Iran deals with the foreign developments, with the logic of the state that seeks to achieve its interests and protect its security, not with the logic of the revolution that has an ideological framework that determines the margin of maneuver and freedom of movement available. This means that there is nothing to prevent Tehran's involvement in any "non-nuclear" dialogue with what is called in Iran as the "Great Satan"(*), as long as it comes in the context of the "resilience" or "the protection of national interests," in a way that pushes it, in some cases, to follow flexible policy towards some specific regional files.

The second point is that the sharp polarization between the two main parties within the Iranian political system (Reformists and Conservatives), hasn't prevented the emergence of disagreements inside both of them. In other words, other differences have emerged among the powers that belong to one of the two directions. For example, the powers that belonged to the team that gives priority to the variable of ideology in favor of interest disagreed on the issue of "exporting the Islamic revolution abroad" where some of those powers called for " only exporting moral values of the revolution," such as fighting

injustice, arrogance, independence and self-efficiency, while other powers called for the need to "export the revolution" with its all political, cultural and social fundamentals to the outside powers².

The third point is that the overlap between interest and ideology variables has gone through two main stages since the beginning of the Islamic Revolution in 1979 and it could be addressed as follows:

The first phase: This phase lasted from the beginning of founding of the Islamic Republic in 1979 until 1989, where the ideology was the most influential variable in the process of determining the foreign policy trends due to many internal and foreign considerations, as follows:

First, the internal factors: It can be addressed as follows:

1- The charismatic of Imam Khomeini as the leader of the revolution and founder of the Islamic Republic which granted him mounting influence on the decision-making process. He initially sought to put an ideological character on the foreign policy, which is reflected in his concept of dividing the world into the "House of Justice" , the "House of injustice" , the "oppressed" , the "arrogant", and his insistence on the adoption of a neutral policy towards the international conflict between the two main blocks; the communist Eastern bloc, led by the Soviet Union and the capitalist Western block led by the United States, under the slogan "neither East nor West .. just an Islamic Republic"³.

2- Control of the clergymen over the various institutions of the system, especially after most other civil forces that participated in the revolution have been ousted, like liberals, nationalists and Marxists.

Second: External factors as follows:

1- Mounting escalation of ideological polarization that dominated the international interactions between the Eastern bloc led by the Soviet Union and the Western bloc, led by the United States.

2- Iran's exposure to international isolation and sanctions because of the trends adopted by many of the world powers in dealing with it, especially during the period of the war with Iraq (1980-1988).

The ideological variable has adopted two key elements:

A. National Islamism

The role of National Islamism has significantly mounted after the Islamic Republic was found. Tehran adopted global ideology seemed clear in its quest to establish a world government of Islam, through which it has attempted to export the revolution to other countries and communities.

To accomplish this, as stated in the Constitution and the books written by Khomeini^(*), Iran has sought to communicate with other Islamic movements in the region, such as giving support to the Palestinian and Lebanese organizations in confronting Israel, which represents, in the Iranian officials' point of view, enforcing the constitution, which states that "The Iranian foreign policy based solely on the defense of the rights of Muslims," and that "Iran supports the struggle of the oppressed against the oppressors and arrogant in every corner of the earth".

² Nasser Saghafi-Ameri, Iranian Foreign Policy: Concurrence of Ideology and Pragmatism, Washington, DC; The Middle East Institute, Jan 29, 2009.

³K. Ramzani, Ideology And Pragmatism in Iran's foreign policy, The Middle East Journal, Autumn, 2004, p. 555.

^{*}Khomeini has authored several books on his thoughts on some of the issues like the nature of the political system and constitution, comes in the forefront, the book "Islamic government", and "Secrets Revealed," and "Wilayat al-Faqih".

The principle of "protection the oppressed" (Mostaza'fin) has been stated in more than one article in the constitution, but article (154) has discussed it notably in the following manner: " The Islamic Republic of Iran has as its ideal human felicity throughout human society, and considers the attainment of independence, freedom, and rule of justice and truth to be the right of all people of the world. Accordingly, while scrupulously refraining from all forms of interference in the internal affairs of other nations, it supports the just struggles of the Mostaza'fin (oppressed) against the mustakbirin (tyrants) in every corner of the globe."

Therefore, there are two vital topics to be discussed in this context: **first**, the constitution did not clarify the mechanism by which Iran can help the so called "oppressed in the land" without constituting an interference in the internal affairs of other countries, which is seemingly clear in many cases in the Middle East, similar to its meddling in the internal crises of some countries such as Iraq, Bahrain, Lebanon and the Palestinian territories. Some Iranian officials have tried to confirm that the Iranian support to some regional organizations is only limited to moral framework, which has not developed to providing financial or military aids.

And **second**, Iran did not comply with the application of this article literally, which is so obvious in its attitude of some of the regional issues, such as the issue of Chechnya, where Iran didn't condemn the Russian intervention in Chechnya because of Iran's mutual interests with Russia. Such interests pushed Iran not to adopt a policy that can lead to tension between the Islamic Republic relations and Russia.

There are also other examples of the interest variable effect, similar to the keenness of Iran to establish strong relations with some Latin American countries like Venezuela and Cuba, despite the fact that one of the justifications of hostility against the United States is accusing the US of "not having faith in God" and "deterioration of its social values"⁴.

B. Revolutionary Shiism:

Despite Iran's keenness to put Islamic national unity at the top of its foreign policy priorities, that does not deny that it has adopted, in many cases, a policy focused on supporting Shiite groups in some other countries, like Iraq, Syria, Bahrain, Lebanon and Yemen.

This doubled the impact of the ideological variable on that policy, although it has supported many Sunni organizations and factions at the same time, like " Hamas " and the " Islamic Jihad " Palestinian groups. Without doubt, one of the reasons for Iran keenness to establish strong relationships with those Sunni organizations is due to its efforts to respond to accusations that its foreign policy has sectarian and ideological mark.

This was reflected when Supreme Leader Ali Khamenei, on June 4, 2015, confirmed that "Iran does not seek Shiite regional domination," adding that Iran is a far cry from taking a sectarian attitude because it supported the Lebanese Shiite resistance as it also supported the Palestinian Sunni resistance."

But these Iranian statements have not diminished fears of some of the region's countries towards Iran's foreign policy, in the light of the prominent support provided by Iran for the Muslim Shiites in the first place, and its turn in escalating the Shiite-Sunni sectarian conflict in countries where there are Shiite groups.

The escalation of these variable impact, in the process of determining the foreign policy directions to Iran during the first decade of the revolution, has led to the widening the gap between Iran and its

⁴ Kareem Sejad Poor, in the understanding of the Imam Khamenei: Vision of the commander of Iran's Islamic Revolution, Washington: Carnegie Endowment for International Peace, 2008, p. 16.

neighboring countries, especially in the light of Iran's maneuvers to adopt the policy of "exporting revolution" to what it has called "free Muslim countries", And "non-Muslim countries", in order to liberate them from the ruling regimes, which was dubbed "corruption" by the regime of the Islamic Republic⁵.

The second phase: That stage began with the end of the Iraq-Iran war in 1988. Under the mounting pressures imposed by the eight-years war that left considerable losses in the financial and human resources for both sides, as well as the spread of the case of instability in the fields of security and policy within the state, Tehran tended gradually towards putting a pragmatic character on its foreign policy, without denying that the ideology retained its role as a key variable in determining the trends of the policy, especially towards some issues like the Arab-Israeli conflict, which brought more complexity to the making of foreign policy decision, and imposed a kind of ambiguity on how Iran deals with the various regional and international developments.

Without doubt, there are many internal and external considerations contributed to this and can be addressed as follows:

First, the internal factors; the most important elements are:

1- The beginning of crystallization of internal visions and ideas intended to put a little pragmatic nature on Iran's dealing with regional and international developments.

2- Hashemi Rafsanjani's takeover of power in 1989, where he sought to rebuild the economy devastated by the war with Iraq in the framework of the reconstruction policy adopted in that period. He was one of the key officials who have succeeded in persuading Khomeini to agree to the UN Security Council Resolution No. 598, issued in July 20, 1987 that called for an immediate ceasefire between Iran and Iraq, which he compared to "drinking a cup of poison."

Rafsanjani has followed a pragmatic attitude to end the war with Iraq in order to stop the human and economic losses and start the reconstruction process, a matter that put him under strong criticism later, as the ultraconservatives have accused him of "forcing" Khomeini to accept the decision, in away that has led him to confirm that " Khomeini chose to do so because he cares for his people at the expense of his reputation"⁶.

Even Rafsanjani himself called for improving relations with the United States, considering the reintegration of Iran into the international community after the isolation stage it has endured in the first decade of the revolution stage, has necessitated the need to change its policy towards world superpowers, which could obstruct any attempts by Iran to get out of that stage.

In this context, Rafsanjani tried to circulate that Khomeini himself was thinking of urging the government to stop using the "Great Satan" slogan in dealing with the United States. He mentioned that Khomeini said: "when ending the problems that accompanied the first period of the revolution, good relationships with the United States could be forged like any other state."

Mohsen Rafiq Douste, one of the leading persons of the Revolutionary Guards in the first decade of the revolution, has agreed with Rafsanjani in this assessment, where he pointed out that he had asked Khomeini to establish the headquarters of the Revolutionary Guards at the US Embassy, which was occupied in the November 4, 1979, but Khomeini refused to do so, saying: "Is it supposed that our

⁵Cenap Çakmak, Evolution and Change in Iranian Foreign Policy: From Ideology-Orientedness to Pragmatism, center for strategic studies, 12 July 2013.

⁶ Mohammad Ayatollahi Tabaar, Iran's pragmatic turn, The foreign policy, September 12, 2013.

differences with the United States last for a thousand years?"⁷, It poses as a signal that Khomeini considered, according to the opinions of Rafsanjani and Rafiq Douste, that the conflict and tension with the United States is temporary, and probably shrinks over time in the event of relative settlement on many argumentative files.

Second: External factors: Summarized as follows:

1- The end of international polarization era between the Eastern and Western blocs after the collapse of the Soviet Union that constituted a unipolar system led by the United States and the dominance of the capitalist system in the international arena.

2- Iran's keenness to reduce tensions with the outside world, and re-integration into the international community, in order to get rid of the pressures imposed by the international and regional isolation caused by the "export of revolution" policy in that period.

On this basis, the realistic pragmatic trend began to rise on the domestic political scene, where it called for the primacy of interest over ideology in foreign policy-making process, through reducing the importance given to the issue of "exporting revolution" in Iran's foreign policy, and opening up to the outside world, by adopting a foreign policy less stringent as well as to restrict Iran's interference in the internal affairs of other countries in the region. It also emphasizes that Iran's policy during the first decade of the revolution is no longer achieving its goals with the changing international scene and the emergence of unipolarity system, led by the United States.

According to this trend, Iran is a major regional power. It is geopolitically located on a major crossroads between five major regions; the Middle East, West Asia, the Gulf region, Caucasus and Central Asia. It is also close to the lines of the global transportation and oil-rich areas. All this helped it grasp the attention of many international and regional powers, in a way, that required it to go into different types of interactions with these countries, which necessitates, in considering this trend, to follow a policy that takes into account the national interests in the first place.

The effect of this trend has begun growing with the end of the first decade of the revolution. In this context, Khomeini took a number of steps to deal with the developments in the regional and international arenas in the period before his death on June 4, 1989, where he agreed to establish relations with the Soviet Union⁸. Iran has also sought to develop its relations with China, in order to develop its nuclear program again. In this context, some Iranian officials made visits to the two countries in 1989, such as the Secretary of the Supreme National Security Council Hassan Rouhani (later President of Republic), who visited China to persuade it to establish a nuclear power plant of 300 MW, and a uranium enrichment plant. Hashemi Rafsanjani, president of Islamic Shura Council (later President of Republic), had visited Moscow, to negotiate the completion of the Bushehr plant⁹.

Iran also began to seek reducing the tension in relations with Western countries, especially when Hashemi Rafsanjani took over the power (1989-1997), after the death of Khomeini and the upgrading of Ali Khamenei to the position of Supreme Leader of the Islamic Republic. A fatwa issued by Khomeini of assassinating the British Author (of Indian origin) Salman Rushdie, after his book "The Satanic Verses", was a reason of increasing tension in relations between Iran and Western countries. Rafsanjani

⁷Akbar Ganji, Revolutionary Pragmatists, Why Iran's Military Won't Spoil Détente with the U.S., The Foreign Affairs, November 10, 2013.

⁸Kaveh Ehsani, "Tilt But Don't Spill". Iran's Development And Reconstruction Dilemma, Middle East Report, November – December 1994, p. 17.

⁹ Patrick Clawson, the viewpoint of Rowhani's nuclear program: Is it an open book?, Washington Institute for Near East Policy, 19.06.2013.

and some Iranian officials made strenuous efforts, at that time, in order to confirm that the fatwa "represents a religious opinion only for who issued it" considering that Khomeini before being a leader of the revolution, he is a man of religion, which means that the fatwa had no significant impact on Iranian foreign policy⁽⁹⁾.

The controversy over the issue was renewed in 1997, when Rafsanjani tried to improve relations with Britain, where he delegated to London, Mohammad Javad Larijani, National Security Adviser and Vice Chairman of the Foreign Relations Committee of the Shura Council.

But while Larijani was meeting with British officials in London, Ayatollah Hassan Sanie, Director General of the "the fifteenth of Khordad Foundation," which is considered one of the important social institutions in Iran, and is called a " Bonyads", has announced raising the reward value of the assassination of Salman Rushdie to two million dollars, which forced Rafsanjani to emphasize that this institution is non-governmental and its decisions do not reflect the official policy of the state¹⁰.

In this context, President Rafsanjani began to engage in constructive relations with neighboring countries, especially the Gulf Cooperation Council (GCC). Iran's support for some of Islamic movements in Arab countries, except for the Arab Mashreq region, decreased to a limited extent. Iran has tried to invest its attitude in favor of the Iraqi withdrawal from Kuwait, in order to improve its relations with neighboring countries, and to direct positive messages to the Arab countries of its keenness to reintegrate into the international community.

Hence, maybe we can explain the reasons behind Iran's hurrying to reject Iraq's attempts to improve relations between the two parties to neutralize the positive attitude adopted by Iran from the Iraqi invasion of Kuwait, which is reflected in the confirmation of President Rafsanjani that "Iran will not completely accept the Iraqi invasion of Kuwait, even if accepted by Arab States." Iran reaffirmed its commitment to the international sanctions imposed on Iraq by the UN Security Council¹¹.

When former President Mohammad Khatami took over the power (1997-2005), he sought to strengthen the approach to adopt a more pragmatic policy in dealing with the overseas trend, which is reflected in his call to build confidence and to reject tension in relations with the outside world, which eventually portrayed into the "Dialogue of civilizations" initiative.

Iran, during his term, specifically in 1998 declined the military intervention plan in Afghanistan, after the Taliban had killing 11 Iranian diplomats in the city of Mazar Sharif in August 1998. This

*Fatwa is sometimes exercises a key role in Iran's foreign policy decision-making process, particularly as it reflects the ideological aspect of that policy. Fatwa has gained special attention during the recent period, especially after the issuance of the Supreme Leader Ali Khamenei his own fatwa prohibiting the use, production or storage of nuclear weapons.

What is striking in this context is that Iran has sought to give international legitimacy to the fatwa, President Hassan Rouhani has confirmed, in November 2014, that "the introduction of a fatwa, Khamenei is more important to us from the Nuclear Nonproliferation Treaty provisions and the Protocol." While President of council, Ali Larijani pointed out that the "Fatwa leader would open the door to end the unexplained sensitivity among Western countries".

Although US President Barack Obama tried to suggest that Khamenei's fatwa is possible to support access to the settlement of the Iranian nuclear crisis, saying they "constitute a good mechanism to comply with the agreement," but that does not negate the fact that the international powers refused to recognize that fatwa as a key bond in any nuclear agreement with Iran, in a sign that it recognizes that the fatwa in itself does not impose any strict formal commitments on Iran, as it lacks any grounds in the international law, and most seriously, that Iran could drop it at any moment, if felt the need to change its approach towards seeking to acquire the nuclear weapons. In other words, the issuance of the advisory opinion does not prevent Iran from seeking nuclear weapons. For more details see: Amir Taheri, Iran: Fatwa and Obama's creative diplomacy, Al Sharq Al Awsat Newspaper, January 18, 2013. See also: Gareth Porter, When the Ayatollah Said No to Nukes, the foreign affairs, October 16, 2014.

¹⁰Niveen Abdel Moneim Massad, Decision-making in Iran and the Arab-Iranian relations, Beirut; Center for Arab Unity Studies, 2001, p. 148.

¹¹Mohammed Saeed Idris, Iran and Iraq conflicts between hegemony and threats, in: Dr. Ahmed Ibrahim Mahmoud (Editor), the Gulf and the Iraqi invasion of Kuwait, the issue of the occupation of Iraq from 1990 to 2003, Cairo: Al-Ahram Center for Political and Strategic Studies, 2002, pp. 200-201.

demonstrates that Iran preferred not to risk a direct military confrontation with the Taliban during that period¹².

According to many trends, President Khatami sought to invest September 2001 attacks, in order to improve relations with the United States, when he sent a message of condolence to the "American people". Iran, during his term, had neutral policy towards the US war against the Taliban regime in Afghanistan in 2001 and Saddam Hussein's regime in Iraq in 2003.

In fact, other trends indicated that Iran had deliberately provided indirect aid to the US occupation of both Afghanistan and Iraq, first in order to contain any potentiality of war by the United States in light of the hostile policy adopted by the Republican Administration in Washington towards it in that period, and secondly to get rid of the biggest rivals of Iran in the region.

In this context, some trends indicated that Iran has taken into account that their survival as a nation is also dependent on stability level with its neighbors, and the sources of threat that can be faced from within those countries, which shows that the pragmatic variant had an impact on the decision-making process in that period, specifically towards the US war on Afghanistan and Iraq⁽¹³⁾. As it After the occupation of the two countries, Iran has sought to enhance its influence inside them to protect its interests and its national security and at the same time to strengthen its efforts to become a major power in the region.

President Khatami also called, during his second term (2001-2005) to grant the government the authority of foreign policy making-decision. He asked the supervision of the Ministry of Finance on activities of some of the institutions that were contributing in providing clear support for some foreign organizations in the framework of "support the oppressed" (Mostaza'fin) policy, which reflected the ideological aspect of that policy. These institutions are called "bonyad" similar to the "Mostaza'fin" Foundation and "the fifteenth of Khordad"¹⁴.

Of course, President Khatami's efforts to reduce the role of the ideological variable on foreign policy faced numerous obstacles by some ultra conservatives who considered the reformers departed from the revolutionary ideals adopted by the revolution, and that the policy they pursue will cause a threat to national security and the interests of the state.

But with former President Mahmoud Ahmadinejad came to power in 2005, it seemed that Iran returned to the hard-line foreign policy¹⁵, and had an ideological character in dealing with some urgent developments on the regional and international arenas. This has contributed, to a large extent, in escalating the tension with its neighboring countries, especially the Arab Gulf States, and some international powers, especially the United States of America.

Remarkably, in this context, it is that extremism that characterized the Iranian foreign policy during President Ahmadinejad's terms did not completely led to the exclusion of the pragmatic approach, but it seemed at times that there is a remarkable overlap between the variables of interest and ideology, which is reflected in the policies adopted by Iran towards Arab revolutions and protests which began in 2011.

¹²Walter posch, the third world, global Islam and pragmatism, the making of Iranian foreign policy, Berlin; Germany institution for international and security affairs,2013, p. 17.

¹³ Nasser Saghafi-Ameri, Op cit.

¹⁴Ray Takeyh, Pragmatism in the Midst of Iranian Turmoil, The Washington Quarterly, Autumn 2004.

¹⁵Michael Connell, Alireza Nader, Jacob Boyars, Iran's Strategic Interests in the Middle East, A Non-Profit Research and Analysis Corporation, February 2008, p. 2.

Iran has supported Tunisian and Egyptian revolutions, which have succeeded in overthrowing regimes of former presidents of Tunisia Zine El Abidine Ben Ali and former Egyptian President Hosni Mubarak, and has supported the protests in Bahrain, as it comes within the framework of the "supporting the oppressed" stipulated by the Iranian constitution.

But when revolutions extended to some other countries that establish strong ties with Iran, especially Syria, the Islamic republic has begun to follow the opposite policy, where it described the events in Syria since March 2011, as "an internal affair" and considered it "a foreign plot to undermine the pillars of the Syrian regime" and "targeting Iran's interests", and supported the actions taken by Syrian President Bashar al-Assad's regime in dealing with the protests.

This apparent contradiction in Iran's policy toward the Arab revolutions and protests raises an important point, that Iran summons, in some cases, the ideological variable when it is compatible with their interests. In other words, despite the headline of Iran's policies of some of the developments in the region was "the defense of the oppressed in the land," as one of Iran's Islamic government tasks according to the constitution, Iran has shown, in many cases, its ability to read the developments and how to deal with it effectively for its interests at one hand and to stave off the risk on the other hand.

Perhaps we can say that what supports this dissertation is that Iran is very careful to adopt a policy of "direct confrontation" as long as the outcome is not guaranteed, and prefer to pursue a policy of the "proxy war", which is a clear evident in its relations with some regional powers such as the Lebanese movement "Hezbollah" and Palestinian movement "Hamas", a policy that reflects remarkable its ability to engage in rational calculation and an accurate assessment of relations and boundaries of the power¹⁶. Indicators are seemingly numerous; despite Iran's support of the protests that took place in Bahrain and its strong condemnation of GCC states' attitudes towards the protests especially with regard to the sending of "Peninsula Shield" forces to, but it did not finally take concrete action in this regard.

Iran also did not hesitate to recognize the legitimacy of the Transitional National Council of Libya on September 18, 2011 and voted in favor of granting it Libya's seat at the United Nations after the rebel forces entered Tripoli¹⁷.

Although many countries have adopted the same attitude, it grasped special attention and momentum in the case of Iran, because it was one of the countries that has refused international intervention in Libya which was represented in the operations carried out by NATO against the former Libyan Colonel Muammar Gaddafi's forces. And also because it sought to establish strong relationships with the Gaddafi regime, at the military level in particular, especially during the Iraq-Iran war (1980-1988), when Libya supported the Iranians, and The two countries signed a military cooperation agreement in 1987, which led to the establishment of military industrial projects between the two countries¹⁸.

Remarkably, in this context, the issue of the disappearance of the leading Lebanese Shiite Imam Moussa al-Sadr and his two companions, Sheikh Mohammed Yacoub and journalist Abbas Badr al-Din, during their visit to Libya to attend the 1st of September Al-Fateh celebrations in 1978, did not prevent the development of relations between the two sides, especially in the military field.

The impact of the pragmatic variable in Iran's foreign policy has been growing with the victory of President Hassan Rouhani, who belongs to the moderate wing of the conservative movement in the

¹⁶Michael Eisenstadt and Mehdi Khalaji, religious fatwa, religion and politics in the deployment strategy pursued by Iran, an executive summary, the Washington Institute for Near East Policy, September 19,2011.

¹⁷ Mehr News Agency, September 18, 2011.

¹⁸ Al Sharq Al Awsat Newspaper, December 22, 2003.

Iranian presidential elections that took place in June 2013 among four of the candidates of the ultra conservatives movement.

The new policy adopted by Iran which has been characterized with the pragmatic nature led to reaching the nuclear deal with the "P5 +1" group in July 14, 2015. The pragmatic variable helped Iran not interfere directly in regional crises which impose a direct threat to its interests and its national security. It has provided a military support for Iraq to help the Iraqi forces in their fight with Islamic State militant group. It also transferred military expertise and provides economic aids to the Syrian regime of President Bashar al-Assad to help confront the armed opposition forces.

But entirely, this has not resulted in the exclusion of the ideological variable in the final process of determining the Iranian foreign policy trends. It seemed that many state institutions were keen on recalling it sometimes to achieve specific goals. This was reflected in the keenness of the Supreme Leader Ali Khamenei to adopt the same hard-line policy of ideological nature at some stages after reaching the nuclear agreement.

Khamenei has pointed out, in the July 18, 2015, that Iran will continue to support what he called "the oppressed nations"¹⁹. He was also keen, in the September 9, 2015, to re-describe the United States as "the Great Satan, that does not hide hostility to the Islamic Republic". While at the same time he said that: "Iran will not renegotiate with the United States after the nuclear file", and that "Israel will disappear within 25 years and they will not be left alone until this time"²⁰.

Khamenei's deliberate re-use of the ideological nature on his vision for relations with the United States, which will have influence on the Iranian foreign policy attitudes specifically toward this issue could be interpreted in the light of three considerations;

First, Iranian political system constantly recalls its enmity with the United States to strengthen its internal public bases and evade the crises it faces at home and abroad. Therefore, the end of this rivalry, in the event that some institutions have succeeded, especially the presidency, in making use of the reaching the nuclear agreement for the development of relations with the United States, could threaten the foundations upon which the political system is relied on since 1979.

Second, to improve relations with the United States, this simply means to strengthen nationalist and liberal attitudes espoused by some internal political movements, a matter that can be deduced from the interests of the clergymen and the gains they have achieved through their ability to control the decision-making process in the country.

Third, some regime institutions have concerns towards the potential negative consequences of developing relations with the United States on the societal and political cohesion in Iran in the next stage. Several internal trends began to warn of the risk of a repeat of what it calls "the Soviet model" in Iran after reaching the nuclear agreement with the world powers.

Remarkably, in this context, it is that some state officials also began to recall the ideological variable again in dealing with external developments. Ali Younesi, President Rohani's advisor for minorities, said in March 2015, that "Iran is an empire with its capital in Baghdad."

Although Iran had previously rejected the accusations of seeking to establish a "Shiite crescent" starts from Iran and passes through Iraq, Syria and ends in Lebanon and the Palestinian territories, a term which Jordanian King Abdullah II first used in 2004, after the US occupation of Iraq immediately, which

¹⁹ Mehr News Agency, July 18, 2015.

²⁰ Mehr News Agency, September 10, 2015.

imposed numerous repercussions that contributed to the strengthening of the Iranian role in Iraq and the whole region, Iran began to use the term during the recent period, as one of the direct results of its foreign policy that wanted to strengthen the pillars of what it called the "axis of resistance" in the region. This axis backs the Lebanese Hezbollah group and the Palestinian Hamas movement and the Islamic Jihad group, as well as many of the groups and militias in several countries in the region, like Iraq and Yemen.

But that does not negate the fact that there are other trends now believe that these officials, as did not rule out the pragmatic variable in dealing with various issues. They are contrary to the religious institution - which supports a culture of confrontation and resistance with arrogance- as they have the ability to deal with the developments. In this context, General Hassan Alai, one of the most prominent leaders of the former senior Revolutionary Guards, said that: "any new war in the Middle East will claim only more Muslims lives, especially the Shiites"²¹.

President Rouhani, has tried to reject the accusations of seeking to establish a "Shiite crescent" that do nothing but expanding the gap between Iran and its neighbors when he said: "We do not have something named Shia Crescent and Sunni Crescent. We have an Islamic moon and we Muslims are in a world which we need to be united"²². But such attempts do not minimize the role and impact of the powerful institutions in the regime which exert more efforts to maintain the ideology variable in the process of determining foreign policy directions.

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²¹ Akbar Ganji, Op cit.

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THE INFLUENCES OF REFORMING THE SAUDI ARABIAN PUBLIC HEALTHCARE ON MANAGEMENT ACCOUNTING PRACTISES: CONTINGENCY APPROACH

Abstract

Purpose- This paper aims to define the literature gap in order to contribute to filling this through the research project, which will investigate the new reform of Saudi public healthcare, “State-Owned Enterprise” (SOE), as organisational change and its influence on Management Accounting (MA). This research project will be based on a contingency approach to investigate the SOE reform influences on MA by focusing on contingent factors changes resulted by the implementation of this reform.

Design/ methodology/ approach- This is a desk-based study of existing literature, analysed through influences of reforming the public healthcare sector based on a contingency theory approach

Findings- This paper considers the contingency framework though defining different contingencies which have been affected following the applying of SOE reform, according to the related literature, as follows: perceived environmental uncertainty, organisational strategy, structure, culture and technology.

Originality/ value- This review concludes the literature gap affording an opportunity for scholars to contribute to knowledge by filling this gap

Keywords: Contingency theory, Management Accounting, Public healthcare sector, Saudi Arabia

JEL Codes: M49

Introduction

This review aims to define the literature gap by highlighting the following three points, Saudi public healthcare, organisational changes and Management Accounting Practices (MAPs) and Contingency Theory (CT) -based management accounting researches, so as to link them together to conclude the literature gap and thereby meet the objective of this paper. This review highlighted an overview of the research background as regards Saudi public healthcare in order to present a clear understanding about the situation of the Saudi public healthcare sector. Following that, it discussed the literature related to organisational change and management accounting to understand the relationship between them. This paper reviewed management accounting changes within the public healthcare sector. Finally, this review analysed contingency-based research related to management accounting in order to shape the contingency approach. In other words, to develop the selection of independent variables from the contingent factors which have been discussed in previous related literature.

Background of Saudi Public Healthcare

Over the last few decades, the Saudi Arabian government has developed its public services, especially in the areas of education and health. The government’s focus is on providing a high level of quality free healthcare services to its citizens, funded by the high income from its natural resources, such as oil and gas. As a result, the Saudi Arabian Ministry of Health (MOH) has attempted to improve its institutions and has pursued many strategies to develop its healthcare services. Previously, public hospitals were managed by traditional public administration. However, most of these hospitals could not meet the

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public's expectations (Mufti, 2000). In the middle of the 1990s, the majority of these hospitals transformed from traditional public administration to contracting management. This means that the power of managing and operating of hospitals moved from the MOH to the private sector. Unfortunately, the private sector was operating the public hospitals as private concerns, focusing on maximum profit and ignoring both the quality of the healthcare services and improving the performance of hospitals, as was noted by Almalki, *et al.*, (2011).

The MOH made another attempt at improving its healthcare services by introducing the “self-employment programme” as a new public management reform. This reform adopted the moving of power and decision-making from the MOH to hospitals' executive officers. This reform solved many weaknesses in the previous strategies under which hospitals were run. This strategy was applied in 2007, and although, initially, only to a limited number of hospitals, this number increased gradually over time. This reform enhanced the hospital in undertaking employment on its own accord without any external power having specific input into decision-making or other internal operations (Al-Amri, 2016).

The new public management reform strategy is more flexible, without any of the bureaucracy and routine procedures involved in previous strategies. However, the MOH has developed a special policy and rules for the hospitals managed by this strategy to ensure that public healthcare providers function properly and have allocated job descriptions for all professionals, including their rights and duties. Moreover, the MOH has forced these providers to obtain international professional accreditation, such as the Joint Commission International which accredits healthcare providers worldwide. This means that the hospitals have to follow national and international standards when providing healthcare services. In addition, every hospital has had to establish new departments following the application of this strategy, which entails following these standards as well as concerning patient satisfaction. However, public healthcare providers are organised as public entities, which, means there are limitations to carrying out the required developments designed to improve their performances. Moreover, they are huge burden on the government's budget.

In 2016, the government allocated the healthcare sector budget as a one of the highest of all governmental expenditure. At more than \$16.5 billion, 7.5% of the government's total budget was spent in the healthcare sector in 2016 (MOF, 2017).

At this time, the SA government faced difficulties in a sharp decline in its public income because the price of oil suddenly fell by more than 60% in the international market between 2012 and 2016 (OPEC, 2017), as well as a result of political issues in the Middle East. The Government of Saudi Arabia decided to both decrease its expenditure and improve its effectiveness. Consequently, the SA government developed its “Vision 2030” policy to adjust to the new economic circumstances and supported the National Transformation Programme 2020 (NTP 2020) to enhance the fulfilment of Vision 2030. The strategic objectives of NTP 2020 are associated with the short-term objectives of the year 2020. The initial phase of this programme was launched in 2016, and its next phases are likely to be launched in the following subsequent years, involving various public bodies. This programme develops strategic goals based on the Vision and identifies the challenges and risks through 2020 according to its specified targets.

It was mentioned that the Saudi government has had to reduce its expenditure, whereby it has decided to privatise the public healthcare services. The government has experienced successful privatisation with other sectors, especially in terms of the level of quality of services provided to the public in addition to improving performance and utilising human and financial resources to provide public services with a good level of quality as well as obtaining cost effectiveness of the services. This has led to differences between the public and private sector. As many researchers have noted, the private sector has been forced to improve the quality of its performance because it operates according to market mechanisms

within a competitive environment (Praker, 2001; Dayoup, 2006; Faleh, 2008). In contrast, the public sector suffers inefficiencies in performance because it has to follow governmental bureaucracies as well as being the significant reason for financial issues in many countries worldwide (Berhm and Gates, 1999; Clark *et al*, 2005). This is particularly the case in the Saudi Arabian public healthcare sector which provides healthcare services free of charge. As it does not have any revenues, it relies totally on governmental funding.

At present, the government is working hard to improve the current system and to facilitate the business environment for the privatisation processes. The main role of the government is to make policies which cover both sides in the healthcare services industries and national medical insurance scheme. The MOH start to analyse the current healthcare system in Saudi Arabia. However, it has concluded that the infrastructure of healthcare in Saudi Arabia needs to improve before implementing privatisation reform. In other words, the current Saudi Arabian healthcare system cannot meet the requirements of successful privatisation. Consequently, it has stated that it will firstly improve the current healthcare system by embarking on more than forty initiatives and programs which will support the current system in order to secure the successful privatisation requirements.

At the same time, the MOH has launched an enhanced model of healthcare to improve healthcare system by setting up alternative healthcare providers and not just hospitals and primary healthcare centres as in the current system. Moreover, the MOH will attempt to separate its multiple roles by supporting institutional transformation of its public providers. Thus, the operator and managerial roles will move to the independent sector. In other words, while the MOH will abandon healthcare services provision it will stay play the roles of regulator, supervisor and funder.

To achieve these objectives in obtaining a suitable healthcare system environment to meet successful privatisation requirements, it has decided to embark on improving the healthcare system as a pre-privatisation stage. The MOH is attempting to facilitate to circumstances of the healthcare system so as to be ready to implement privatisation reform. It will transform healthcare services provision to a new holding state-owned enterprise which will be independent of the MOH. This enterprise will have many subsidiaries, one for each hospital and PHC.

Following applying this reform, “state-owned enterprises” in public healthcare providers will prepare to subsequently implement privatisation as well as developing a successful national insurance scheme which will fund healthcare services following privatisation. The MOH plans to use this reform for a few years until its healthcare system achieves the reasonable level of improvement which meets the successful privatisation requirements.

This research will investigate the influences of organisational changes in hospitals on management accounting. Moreover, to present a clear understanding of these influences it will use contingent organisational factors which have affected management accounting or led to management accounting change in three reformed public healthcare providers in Saudi Arabia. Hence, this research will identify contingent factors from previous literature as well as interviews which will be conducted to collect the primary data of this research.

Management accounting and organisational change

This section will highlight the relation between different terminologies used in management accounting literature and will then discuss the definition of management accounting in order to understand management accounting change. It will also discuss organisational change to understand the meaning of Saudi Arabian public healthcare sector reform. Following this, it will discuss the relation between

organisational change and management accounting change and then analyse organisational changes factors which influence on management accounting.

In management accounting research many terminologies very commonly used in previous literature include management accounting, management accounting system and management control system. The majority of researchers use these terminologies as synonyms; however, Chenhall (2003) stated clearly specific definitions for each terms: “*management accounting refers to a collection of practices such as budgeting, management accounting system refers to the systematic use of management accounting to achieve some goal*” such as organisational objectives (Chenhall, 2003, p.29). Lastly, he defined management control system as a comprehensive system comprising various control systems at an organisational level, such as; management accounting system (Chenhall, 2003). As mentioned early, this research will focus on management accounting changes following reform in the Saudi Arabian public healthcare sector. However, these sections will analyse the studies related to management accounting practices, management accounting, management accounting system and management control system, because management accounting is a part of management accounting system and it is a part of management control system.

The definition of management accounting is not very different in a variety of resources, such as handbooks, academic research and professional institutions. Thus, I will focus on management accounting’s comprehensive definition by CIMA², which is “*the process of identification, measurement, accumulation, analysis, preparation, interpretation and communication of information used by management to plan, evaluate and control within an entity and to assure appropriate use of and accountability for its resources; furthermore, management accounting also comprises the preparation of financial reports for non-management groups such as shareholders, creditors, regulatory agencies and tax authorities*” (Atkinson, et al., 2007, p. 3). In contrast, the practical definition by the Institute of Management Accountant (IMA) defined management accounting as “*a profession that involves partnering in management decision, devising planning and performance management system, and providing expertise in financial reporting and control to assist management in the formulation and implementation of an organisation’s strategy*” (IMA, 2008, p. 1). The previous definitions illustrate the concept of management accounting as well as its functions at an organisation level. Further, they refer to providing information for both internal and external stakeholders. Accordingly, put simply, management accounting change can be defined as any modification in previous concepts, functions and elements. However, this is a particular topic in management research. The majority of management accounting research has attempted to provide a practical consideration of management accounting change at different levels of an organisation. Some of these researches have focused on the causes of this change, while, on the other hand, there are studies highlighting the influences of this change. In my thesis, these literatures will be discussed in depth.

Organisational change is a “*new way of organising and working*” (Dawson, 2003, p. 11). This is a simple definition of organisational change which has been a central topic of researchers’ interest in different fields (Burnes, 2004). In-depth discussion of organisational change has argued that organisational change refers to its character and performance. Change in character means modification of design, which includes strategies, structures, system, etc. These changes influence organisational performance (Mohrman, et al., 1989). Many scholars have noted that the causes of organisational change could be internal or external (Burnes, 2004; Rajagopalan and Spreitzer, 1997). Given that organisational change influence on both internal and external factors, this research will investigate management accounting change following organisational change, which includes changing of organisational design because the new reform of the Saudi Arabian public healthcare sector comprises changes in the strategies, structures, process and activities of organisations (hospitals).

² The Chartered Institute of Management Accountants.

The organisational change process influences significantly on management accounting. (Scapens and Jazayeri, 2003; Senior and Swailes, 2010). In other words, organisational change leads to management accounting change. Hopwood (1987) argued that this is in contrast to the previous relation in which the management accounting change was directed to organisational change, such as organisational reform and improvement (Hopwood, 1987). In this research, management accounting change will emerge as a result of the government's decision to reform the public healthcare sector. Thus, this research will investigate the influences of organisational change on management accounting. This means that this research progress will follow the first assumption by which organisational change led to management accounting change. However, authors have noted and discussed many causes of management accounting change. The most significant causes of management accounting change are: power, which was discussed by Jones (1985), Burns and Scapens (2000), and Modell (2001); leadership, which was addressed by Robinson (1999), Podsakoff, *et al.* (1990), Howieson (2003) and Kim, *et al.* (2012); system, which was analysed by Williams and Seaman (2002), Scapens and Jazayeri (2003), Cavalluzzo and Ittner (2004) and Grabski, *et al.*, (2009); culture, which was investigated by Tsui (2001), Collier (2001) and MacArthur (2006); resistance, which was considered by Dawson (1997), Dent and Goldberg (1999) and Schein (2006); change agents and professional groups, as discussed by Zarowin (1997) and Siegel and Sorensen (1999); and communication, which was analysed by Hirsch, *et al.* (1998) and Martins and de Toledo (2000). Finally, the last cause is policy, which is related to my topic and there are a few studies which focus on this cause, such as Laughlin and Broadbent (1993) Bhattacharyya (2006) and Hopper and Major (2007). However, these studies analysed the impacts of policy on MA as external factors, such as the influence of International Financial Reporting Standards (IFRS). Consequently, it is credible that organisational change led to management accounting change. The next section will analyse the factors influencing on management accounting and causing management accounting change.

Management accounting scholars have observed the factors influencing on management accounting within organisational change as organisational system, organisational structure, organisational size, organisational strategies and environmental uncertainty (Hardy, 1996; Chenhall and Langfield-Smith, 1998; Burns, 2000; Busco, *et al.*, 2001; Dawson, 2003; Ribeiro and Scapens, 2004, Busco and Scapens, 2011) and noted that changing organisational design changes the size or management style effect on management accounting (Burns, *et al.*, 1999).

Management accounting change in the healthcare sector

The healthcare sector is similar to other sectors in that it is improvable and, over the last few decades, has faced many significant developments. There is important evidence from management accounting literature which has noted the management accounting change within the healthcare sector worldwide, such as Lawrence *et al.* (1997), Pettersen (2000), Lapsley (2001), Kurunmäki *et al.* (2004), Hassan (2005, 2008), Agrizzi (2008), Hampson (2009), Cardineale *et al.* (2013) and Alamri (2016). Most of these researchers investigated management accounting change in the healthcare sector and the causes of this change as well as the influence of management accounting change on the sector. In this regard, this research will investigate the influences of organisational change (reform sector) on management accounting. In other words, how the organisational change led to management accounting change. The majority of research has noted that the significant management accounting change in the healthcare sector follows implementing of a new reform. For example, Lawrence *et al.* (1997) analysed applying a new reform in the New Zealand public healthcare sector which led to the emergence of a new management accounting technique as well as change in the budgeting process. Moreover, decision-makers adopting performance information following reform in the German healthcare sector through the introduction of Diagnosis Related Group (DRG) forced clinicians to consider the cost of treatment and economic outcomes to achieve the demands of the new accounting policies (Jacobs *et al.*, 2004). In contrast, Cinquini and Campanale (2010) discussed how the management accounting change and

management control system affected the Italian public sector. In other words, the role of management accounting change in improving economic performance of the healthcare sector.

One of the most significant causes that leads to management accounting change is using information technology systems (Tuan Mat, 2010). Consequently, developing countries have to set a corporate governance framework to meet the developed market in the use of management accounting (Kholeif *et al.*, 2007). In this regard, some researchers have noted the Enterprise Resource Planning (ERP) effects positively on traditional management accounting techniques as well as ERP playing a support role to develop management accounting, which leads to improve organisational performance (Al-Turki, 2011). Moreover, Scapens and Jazayeri (2003) argued that using information technologies has enhanced the effective outcome of different accounting systems in the public sector by improving accrual information. Globalisation has also led to management accounting change, as observed by Hassan (2008), who conducted his research to evaluate the role of globalisation in healthcare provision and management by emerging partnerships between organisations in developed countries and organisations in developing countries, linking them together to create opportunities for hospitals in developing countries to benefit from those in developed countries, especially in regards to management accounting practices such as performance measures. In addition, Alamri (2016) argued that international partnership is one of the reasons for management accounting change in public healthcare providers in Saudi Arabia, as a developing country, by launching an international partnership with Johns Hopkins Hospital in the USA. This connection allowed both hospitals to exchange of staff to benefit from the different experiences of employees (Alamri, 2016).

There are other drivers or causes which lead to management accounting change, the most common driver being reform of the healthcare sector. Hassan (2005) argued that the recent reform of the Egyptian public healthcare sector required adopting cost-reduction in providing healthcare services. Thus, management accounting was influenced following the new reform with introduction of cost-reduction as management accounting practices in Egyptian hospitals (Hassan, 2005). Moreover, the demands of decision-makers have increased to improve their decision. For instance, in some hospitals the decision-makers have adopted performance measures as a result of decisions made related to internal departments. Accordingly, this has led to management accounting change, and the expanding of management accounting function (Pettersen, 2000).

Other authors linked management accounting change to the wider social circumstance of accounting changes and organisations, such as the education level and behaviour of management teams in hospitals (Naslund, 2008; Stamatiadis, 2009). Furthermore, Wu and Boatenge state that the organisational size and resource capability also influences management accounting. However, some research conducted to analyse the situation of management accounting change in developing countries concluded that there are different factors leading to management accounting change in developing countries, such as political, cultural, religion, education and economic factors (Hopper, 2000; Luther and Longden, 2001; Joshi, 2011; Adhikari *et al.*, 2013).

Accordingly, previous discussion about management accounting change in the healthcare sector has argued that the management accounting plays a central role to improve hospital performance in general and to meet the requirements of new policies or society demands. Most of these studies concerning management accounting change in the healthcare sector used an institutional framework to develop the most important aspects on which they focused. However, this research will utilise the contingency framework to develop the contingent variables which help to investigate the influences of organisational change (reform of the public healthcare sector) on management accounting in Saudi Arabia. Thus, the next section will analyse the literature discussing management accounting change using contingency theory as well as presenting the most common contingency factors which were the focus of previous literature which are generally not in healthcare sector.

Contingency-based management accounting research

The influencing contingency factors which lead to management accounting change have been noted by many scholars in the last few decades. This section will highlight the main significant factors which were investigated in previous literature. These literatures will be divided to three groups based on a contingency approach.

The first group is that where studies analysed the influences of contingency factors on management accounting practices, which led to management accounting change. In this group, the majority of research focuses on budgetary effects as management accounting practices by diverse contingency factors. Accordingly, introducing a new strategy, such as competitive strategy, led to management accounting change. Many studies investigated the influences of a new strategy of competition on budgeting as management accounting practices (Govindarajan, 1988); Bruggeman and Van der Stede, 1993; Collins, *et al.*, 1997; Abernethy and Brownell, 1999; Van der Stede, 2000; King, *et al.*, 2010). Further, management accounting practices have also been a concern of some researchers to investigate how contingency factors affect other management accounting practices, such as performance measurements (Chenhall and Langfield-Smith, 1998; Anderson and Lanen, 1999; Hoque, 2004) and Total Quality Management (TQM) (Chenhall and Langfield-Smith, 1998; Abdel-Kader and Luther, 2008).

Moreover, Baines and Langfield-Smith (2003) examined the influence of strategy change on the range of management accounting practices, which include: quality improvement programs, product profitability analysis, benchmarking, customer profitability analysis, shareholder value analysis, target costing, activity-based costing, activity-based management, value chain analysis and product life-cycle analysis (Baines and Langfield-Smith, 2003). Finally, a study investigated the influences of ten contingency factors in change in management accounting practices, such as advanced management technologies, TQM and Just in-Time (JIT). However, this study draws four stages of management accounting practices at organisational level, as follows: the first stage is cost determination and financial control, the second stage is provision of information for planning and control, the third stage is reduction of waste in business resources and the last stage is creation of value through effective resources (Abdel-Kader and Luther, 2008).

The second group of literature contains the research which focuses on the influences of contingency factors on management accounting system. In this regard, it concerns the relationship between management accounting system and the changing of contingency organisational factors (Simons, 1987; Jermias and Gani, 2004; Naranjo-Gil and Hartmann, 2006). The contingency factors discussed in these studies are strategy, organisational structure and processes. Finally, the third group is the research that highlights the influence of contingency factors, such as organisational strategy and environmental uncertainty, on management control system (Bruggeman and Van der Stede, 1993; Kober, *et al.*, 2003, 2007; Bisbe and Otley, 2004; Auzair and Langfield-Smith, 2005; Tsamenyi, *et al.*, 2011; Auzair, 2011). These are a few examples of studies which has used contingency theory in the field of management accounting research. However, most of them have followed quantitative approaches to meet their research objectives.

In contrast, qualitative approaches also have been used with contingency theory, such as Otley (1999) who conducted his research to analyse management control system structure from a contingency theory perspective and followed qualitative methods using case study focusing on contingency aspects. He argued that case-based studies provide a clear in-depth of understanding when using his framework, which focused on the significant problems related to management control system structure, including objectives, strategies, target setting, reward system and feedback. Moreover, this framework enhanced developing the analysis of management control system changes (Otley, 1999).

Recent study has focused on utilising contingency theory to provide a clear analysis of impacts of privatisation “as an organisational change” on management control systems with qualitative approaches, including qualitative collecting data methods such as interview and observation for primary data and content or document analysis for secondary data (Alroqy, 2010).

As noted in literature review section, there is no research which has used the contingency theory to analyse management accounting changes in the healthcare sector. This is an opportunity for this research to contribute to knowledge of this field in conducting this research adopting a contingency approach to investigate the influences of organisational changes on management accounting in the Saudi Arabian public healthcare sector.

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