

Original Research Article

**HORIZONTAL MERGERS AND ITS EFFECTS ON OVERALL
CORPORATE PERFORMANCE.**

EVIDENCE FROM GHANA REVENUE AUTHORITY (GRA)

ABSTRACT

Horizontal mergers and acquisitions (M&A) have been extensively used by firms as vehicles for growth and competitiveness strengthening within the context of the global economy.

Restructuring of government has been a constant theme over the last three decades and revenue administration has not been completely immune to this trend.

It is in this spirit that Ghana in 2009 merged all her revenue agencies in to a Revenue Authority under Ghana Revenue Authority Act (Act 791) known as the GRA.

The GRA has been seen by many as a possible solution to critical problems, such as poor revenue performance, low rates of compliance, ineffective staff, and corruption etc.

However, since the formation of GRA in 2009, no comprehensive assessment has been made of the Authority that exist today and of how well it has served its intended purpose.

The objective of this research therefore is to determine the effect of the merger on the overall corporate performance of the GRA by compiling and ranking the perceptions of GRA management and employees on the improvements in the sixteen (16) key reform areas and also explore the extent to which the perceived improvements have translated into total volume of revenue mobilized post merger.

The study used total yearly revenue and GDP figures for the period 2005 to 2014. The data was further broken down into pre merger (2005 - 2009) and post merger (2010 – 2014) periods.

Integration of tax reform, provision of momentum for change and increase tax revenue were ranked top three in terms of best-improved areas.

The revenue – to – GDP ratio analysis also revealed that even though both revenue and GDP grew positively post merger, the revenue growth rate was slower than that of the GDP. The results of the t – test indicated that there is significance difference between the pre and post merger revenues and hence concludes that the merger has had a great impact of the corporate performance of the GRA.

The study however recommends the GRA be strengthen by resourcing it with the requisite man power and technology to enable them function better and Ghanaians should be educated on the relevance of payment of tax whilst stiffer punishments are handed to tax defaulters. Government must check corruption and work towards creating a congenial economic atmosphere for industrial units to generate more revenues.

Keywords: Horizontal Mergers and Acquisitions, Ghana, Revenue, Authority, GDP and Corporate Performance.

1.0 INTRODUCTION

Mergers and acquisitions became a "trend " during the 1960s and 1980s Lev, (1993); Larcker, 1993), with so-called merger "waves" during this period. Many firms engaged in merger activities during these merger "waves", not only in the United States and Europe, but also in Australia and Japan, Lubatkin and Lane(1996), the reason being that mergers and acquisitions have played an important role in the business environment since the 1960s emerging not only as a part of financial activity but also as part of investment strategy.

Mergers are basically divided into three categories namely horizontal, vertical and a conglomerate. A horizontal merger involves two firms operating in the same kind of business activity, e.g. VAT service and internal revenue service. Vertical merger however occurs

between firms in different stages of production operation. Finally, conglomerate merger occurs between firms engaged in unrelated types of business activity, which makes it possible for the merged firms to broaden the product line and operations in non-overlapping geographic areas.

Horizontal mergers and acquisitions (M&A) have been extensively used by firms as vehicles for growth and competitiveness strengthening within the context of the global economy. In the largest cross-national comparison of the effects of M&A that has been carried out to date, Gugler et al. (2003) find that almost 42% of the completed 45,000 mergers around the world during 1981-1998 was horizontal. They also identify horizontal mergers that increase profits by increasing efficiency

A common view of mergers and acquisitions is that they are stimulated by the firms' objectives to obtain more benefit from the merged firms compared to their total value if they were independent. Dutz (1989) argues that even though mergers are profitable for shareholders, they are socially undesirable and should be prohibited because they may result in rationalisation of capacity. Some studies such as Caves (1989) indicate that mergers are profitable activities and socially desirable, because they create value and are economically efficient. Increased efficiency may arise through synergistic effects, which means that synergistic gains such as operating synergy and financial synergy can also be reached through mergers and acquisitions (Maquieira et al., 1998).

Restructuring of government has been a constant theme over the last three decades as governments have sought to deliver services more effectively and at a lower cost to citizens. In some cases, traditional government structures (e.g., a government ministry organized along hierarchical lines) have been viewed as too rigid to respond to the rapidly changing needs of the public and the challenges confronted by government in modern society. While changes in government have been described as "evolutionary rather than revolutionary," Gray, John, and

74 Emma Chapman (2001), a developing trend has been for government to devolve power to
75 agencies or appointed bodies acting on their behalf.

76 The United Kingdom is seen by many as in the forefront of this new way of doing business
77 and, since the 1990s, its quasi-autonomous agencies account for close to 25 percent of all
78 government expenditure.

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80 Hindriks, Jean, Michael Keen, and Abhinay Muthoo, (1999). Canada and New Zealand employ
81 a similar approach, and significant areas of government whose diversity range from film
82 classification to advertising standards are being run by agencies, rather than traditional
83 ministries of government.

84 Revenue administration has not been completely immune to this trend. Governments of
85 developed countries sought ways to deliver better service and some have turned to a form of
86 semi-autonomous agency to help them meet goals of improved collections, better service to
87 taxpayers, and more flexible human resource management options. Governments of developing
88 countries share many of these goals and have additional complications. Problems related to low
89 capacity and the need for massive administrative reforms, combined with corruption and long
90 periods of non-performance, have made the case for a different form of government structure,
91 compelling both to decision-makers as well as to the donor agencies interested in funding the
92 needed reforms.

93 Over the course of the last 30 years or so, many countries have embarked on programmes of
94 reform for their revenue administrations (tax and customs), and some of these have decided to
95 adopt the idea of a “revenue authority” (RA) as the delivery model for improved
96 administration. Revenue Authority (RA) refers to a governance model for revenue
97 administration where traditional ministry of finance departments (tax and usually customs
98 administrations) are merged as an organization or agency with a degree of autonomy from

government and independence from standard public service policies. Cunningham and Bert (2004).

It is in this spirit that Ghana in 2009 merged the Value Added Tax Service, Custom Excise and Preventive Service, and Internal Revenue Service to form the Ghana Revenue Authority (GRA) under Ghana Revenue Authority Act (Act 791).

Prior to the setting up of the GRA, the three revenue agencies operated autonomously under different laws that regulated their operations. The agencies had separate Boards, Commissioners and managements.

This merger of the various revenue agencies into a Revenue Authority simply known as the GRA, has been seen by some as a possible solution to critical problems, such as poor revenue performance, low rates of compliance, ineffective staff, and corruption. It has often been argued that the RA can lead to improvements, including better accountability for results, synergies in administration across the revenue departments, and management based on professional skills and isolated from external influences.

However, since the merger of the revenue agencies into a Revenue Authority in 2009, no comprehensive assessment has been made of the GRA that exist today and of how well they have served their intended purpose.

The objective of this research therefore is to determine the overall corporate performance of the GRA by compiling and analyzing the improvements in the key reform areas and also explore the extent to which the perceived improvements have translated into total volume of revenue mobilized as a result of the merger.

Specifically this paper seeks to answer the following three questions. First, what is the perception of GRA executives and workers on the improvement made in the key reform areas as a result of the merger?

Secondly, what is the resulting synergistic effect of the Authority in mobilizing revenue as measured by revenue – to GDP ratio?

Lastly, is there a statistically significant difference between the revenue mobilization performance of the revenue agencies (pre – merger) and Ghana Revenue Authority (post – merger)?

The Hypotheses of the study are stated below as;

H₀: There is no significant statistical difference between the total revenue mobilised in the pre and post merger periods

H₁: There is a significant statistical difference between total revenue mobilised in the pre and post merger periods.

The remainder of this paper is organized as follows. Section 2, gives a brief review of relevant literature. Section 3 presents overview of the GRA and the methodology employed with general emphasis of the reform model. The results and discussions are obtained in Section 4, while section 5 draws conclusions and make appropriate recommendations for the study.

2.0 REVIEW OF LITERATURE

2.1 Conceptual Definition of Mergers

Mergers and acquisitions, refer to corporate reorganizations that serve to transfer ownership control from one firm (the target) to the other (the acquirer), strictly speaking, they are different. Their distinction is however sometimes ambiguous. Hirshleifer (1995) affirms that both transactions fall into the more general concept of takeovers. In turn, takeovers may be friendly or hostile. Jenkinson and Mayer (1994) state that it is when the target firm's manager initially rejects the acquisition offer that the takeover turns into hostile. The explicit difference of mergers and acquisitions relies on how the transaction is announced to the target company

and on how the new corporation structure results affected. In mergers, the takeover bid is proposed to the representative manager of the firm and in acquisitions directly to the owners of the firm (the shareholders). That is the reason why acquisitions also fall under the heading of tender offer, i.e., a takeover bid in the form of a public invitation to shareholders to sell their stock. Then, in acquisitions shareholders make independent decisions about their own shares. Once the bid is accepted, the new entity might be legally combined but not necessarily economically combined because the merged firm may still run separate plants. Some times the term acquisition also refers to those deals in which the acquirer only buys minority shares or voting rights of the target. That is, acquisitions also refer to cases in which only part of the company is bought. In contrast, in mergers shareholders altogether vote to make a collective decision about the proposed bid. According to Hirshleifer (1995), in mergers the involved firms cease to have separate identity and combine to one surviving entity. Most empirical studies that use large samples of mergers and acquisitions to evaluate the gains and effects of mergers do not explicitly distinguish between these two types of deals. In case-by-case studies, analysts refer to mergers and not to acquisitions, either because they consider them as equal, or because they are built up from theoretical oligopoly models for which the previous distinctions are not relevant in the analysis.

2.2 Merger types

In both, the theoretical and the empirical literature, another distinct classification of mergers has been extensively employed. This classification does not refer to motives but to types, which differ according to the business structure of the merging firms. See Hughes (1980), Tirole (1988) and Shy (1995). Mergers are defined as horizontal, vertical and conglomerate. Mergers are considered as horizontal when the two companies are in direct competition and share the same product lines and markets. They are considered as vertical when one is a costumer of the other, i.e., when they have a downstream-upstream structure in which the

former buys inputs to the latter to produce the final output. Finally, mergers are considered as conglomerate when firms are in different markets and/or do not have business lines in common.

In practice, when performing empirical studies, the type of the merger is determined by matching their SIC (standard industrial classification) digits. For instance, if the 4-digits of the two firms coincide, the merger is considered as horizontal, if the first 2- digits coincide, the merger is considered as vertical, and when none of the 4-digits coincides, the merger is said to be conglomerate.

According to Martin Lipton (2006) mergers emerged at the end of the nineteenth century in the US and since then, they have occurred in waves. Each wave is characterized by a concentration of the type of merger and specific industries. The very first wave started with horizontal mergers at the beginning of the 1900s and it has been called the wave of mergers for monopoly. The reason for the monopoly adjective is that many firms with small standalone market shares consolidated forming high concentrations.

History and Development of Revenue Authorities (RAs)

A revenue authority (RA) is simply a term to describe a governance regime for an organization engaged in revenue administration that provides for more autonomy than that afforded a normal department in a ministry. Since RAs are organizations within a national government, it can be useful to look at typical national government structures along a spectrum that indicates decreasing government control and increasing autonomy.

Also, restructuring of government has been a constant theme over the last three decades as governments have sought to deliver services more effectively and at a lower cost to citizens. In some cases, traditional government structures (e.g. a government ministry organized along hierarchical lines) have been viewed as too rigid to respond to the rapidly changing needs of the public and the challenges confronted by government in modern society. While changes in

government have been described as “evolutionary rather than revolutionary,” Manning and Matsuda (2000), a developing trend has been for government to devolve power to agencies or appointed bodies acting on their behalf.

The United Kingdom is seen by many as in the forefront of this new way of doing business and, since the 1990s, its quasi-autonomous agencies account for close to 25 percent of all government expenditure. Canada and New Zealand employ a similar approach, and significant areas of government whose diversity range from film classification to advertising standards are being run by agencies, rather than traditional ministries of government. Kidd and Crandall, (2006)

Revenue administration has not been completely immune to this trend. Governments of developed countries sought ways to deliver better service and some have turned to a form of semi-autonomous agency to help them meet goals of improved collections, better service to taxpayers, and more flexible human resource management options. Governments of developing countries share many of these goals and have additional complications. Problems related to low capacity and the need for massive administrative reforms, combined with corruption and long periods of non-performance, have made the case for a different form of government structure, compelling both to decision-makers as well as to the donor agencies interested in funding the needed reforms.

The creation of the first RA dates to the mid-1980s. There are close to 40 RAs around the world clustered largely in Africa and Latin America. Generally, revenue administrations in these regions were faced with the need for massive reform, and the creation of an RA was seen by some as a call in the right direction. Development agencies of some national governments have at times actively promoted RAs as a solution to poor performance (e.g., DFID, USAID) and international organizations have also played a role in this field. Private sector consulting firms have honed and marketed their expertise in this area and had a strong presence in Africa

through the 1980s and 1990s. Countries that have opted for an RA represent a little over 20 percent of the membership of the IMF. Kidd and Crandall, (2006)

2.3 Design and Scope of Revenue Authorities (RAs)

An understanding of RAs requires some knowledge of their design and their scope of activities. Both involve a range of options all of which contribute to where the RA will fall on a continuum of autonomy. Depending on specific policy choices made about design and scope, an RA will have more or less relative autonomy. Little discussion exists in the literature about this range of policy choices that must be considered in the design of an RA.

2.4 Assessments of Revenue Authority Performances

Taliercio, (2004) looks at the overall performance of RAs by assessing six case studies across Latin America and sub-Saharan Africa: Peru, Mexico, Venezuela, Kenya, Uganda, and South Africa. Although he concludes results are mixed, he presents two main findings: (1) performance improved most where the RAs had comparatively more autonomy; and (2) performance improved where autonomy was stable. This is based on the author's assertion that managers with greater autonomy are able to take reforms further and faster.

Taliercio looks at two main criteria upon which to base assessments; management and performance. Management criteria for human resources include the scale of retrenchment and whether staff had to re-apply for their jobs at the time of establishment of the RA, skill, and salary levels of staff, total wages, grading structures, retention, turnover, and corruption levels. For financial management, criteria include collection costs, adequacy of funding, and investments in training and IT. Other management criteria encompassed decentralization, standards, and relations with the private sector. All these are important, Taliercio argues, since "behind any gains in performance are internal reforms to management and personnel systems, most of which would not have been possible without autonomy."

His second area is performance in practice, covering revenue collection, compliance, taxpayer

registration and services, tax revenues as a share of GDP, growth rates in arrears, VAT productivity, audit coverage, and the like. Measuring such criteria to assess performance engenders all the difficulties inherent in measuring tax administration results in general. Taliercio recognizes these difficulties, and talks of painting a picture based on case studies rather than “presenting a rigorous quantitative analysis that controls for exogenous variables.” He speaks of the problems of “data availability,” the general lack of a rigorous methodology for evaluating tax administrations (the great difficulty of measuring the marginal impact of tax administration reform on outcomes such as revenue collection), “measuring” autonomy, and sustainability of reforms.

Taliercio asserts that various reforms would not have been possible without autonomy (an example being staff improvements and reduced corruption in the Kenya Revenue Authority). In other areas, Taliercio states that the more autonomous RAs have reasonably low collection costs (expenditures as a percent of revenues collected). While this measure may work to identify trends over time in a static tax policy environment, the comparison of this ratio between and among countries is fraught with difficulty because of the many exogenous factors affecting the ratio.

Mann (2004) makes a very useful summary of the advantages and disadvantages that have been put forward regarding RAs. On the advantages, or benefits, side he lists: enhanced revenues; greater efficiency; more competent staff; de-politicization of tax administration; reduced corruption; improved services; more professional work ethic; comprehensive accounting for tax revenues; and integration of databases. Disadvantages of RAs are listed as well. Excluding those already mentioned by Taliercio, Mann adds: potential inherent conflict with the ministry of finance; and the possibility of establishing an “unnecessary” organization whose tax collection functions, given the political will and resources, could be upgraded within already existing departments of the ministry of finance.

Mann also points out that cost-benefit analyses are not usually carried out when considering the creation of an RA, something he advises should be done as a matter of importance. The paper makes a number of recommendations in terms of RA features and governance, in all cases recommending the maximum autonomy possible as best practice. The section on governance structure deals only with appointment processes for the board, its members, the CEO, and so on.

In terms of quantifiable data to assist in the basic evaluation of RAs, Mann uses VAT compliance and productivity rates and general tax-to-GDP ratios to make judgments about pre- and post-RA performance. He clearly states, however, that this type of analysis does not control for all the exogenous variables in addition to tax administration efforts that affect outcomes. The paper talks about providing performance indicators that will permit an assessment of RA performance, though not necessarily in assessing the RA governance model *per se*.

This paper does not address the issue of how and when the “modality” of the RA impacts revenue administration. Given the caveats necessary on the quantitative analytical tools available and the relatively small sample size, Mann’s conclusion is tempered; RAs have neither lived up to expectations, nor can they be categorized as having failed. They do, however, he says, provide a platform from which tax administration efficiencies can be generated, but their mere establishment offers no guarantee of success. Throughout the paper, discussions of the decision to establish an RA appear to apply equally to any governance model. In a general sense, the paper addresses the question of tax administration reform, rather than the modality of the RA.

Jenkins (1994) wrote a seminal article (most later studies refer to it), which reflects changes in the concept of public administration that had emerged by the early 1990s that public administration should be focused on citizens and their needs, and that different public

298 institutions had different organizational needs. It notes further an increased emphasis on tax
299 reform in developing countries, and the reality that tax law or tax policy is only as good as its
300 administration.

301 Jenkins’ main observation is that a critical impediment to change for tax administrations is that
302 they were traditionally a part of the general civil service. This, he opines, has led to situations
303 where salaries are low, qualifications of staff poor, hiring subject to political patronage, and
304 opportunities for rent seeking plentiful. Furthermore, public perceptions of this state of affairs
305 were leading to diminished voluntary compliance, the key underpinning of a modern tax
306 administration. Revenue administrations, Jenkins states, need to be more like the central
307 banks—good pay, equipment, facilities, and so on. To respond to this, he notes, many countries
308 have set up autonomous (or semi-autonomous) RAs.

309 Based on the above assessment, Jenkins called for a restructuring of revenue administrations to
310 provide independence in the same manner as central banks: appointment of a CEO for a
311 specified term; authority to establish operating policies; clear and transparent objectives; and a
312 measure of financial independence. It was clear that these more independent revenue
313 administrations should be fully responsible for their own recruitment, training, and salary
314 structure.

315 Jenkins also discusses the notion of a “revenue board,” suggesting these boards should have
316 specific administrative responsibilities and essentially operate as a policy committee, with
317 responsibilities such as ensuring the revenue departments enforce the laws; establishing human
318 resources policies; ensure the sharing of information; providing resource allocation direction;
319 recommending legislative changes; providing revenue forecasts; and setting up internal audit.
320 He is clear that the board should not intervene in tax cases.

321 RA practice in the 2000s generally followed the lines described by Jenkins (although many
322 RAs in Latin America did not choose to create a revenue board), with one exception. Jenkins

suggests the CEO should support the board, but not have line authority over the heads of the revenue departments. This, in fact, was the model for some of the early RAs, such as Kenya. However, all RAs have now moved to the model of a fully empowered CEO (see subsequent sections of this study), especially as modern concepts about integrated and function-based organizations have led to the merging of previously separate revenue departments (except for customs).

Delay, Devas, and Hubbard (1999)

A DFID-commissioned study by the University of Birmingham in 1999 reviewed the experience of DFID-funded projects to support tax administration in Africa against wider international experiences to determine lessons for future work. With specific reference to RAs, the paper concluded that while RAs have much to offer (especially where civil service management inhibits proper HR management) they are not a panacea, do not prevent political interference, and are no guarantee against incompetence or malpractice. The study also notes that the urgency of the need to mobilize revenues in some countries makes the model attractive and that there may be important symbolic value in the “fresh start” which such institutional change promises.

Gray and Chapman (2001)

A further DFID evaluation of revenue projects in 2001 focused on two RAs in particular, Uganda and Zambia. While the prime purpose of the report was to assess linkage between poverty reduction and DFID support for revenue administration improvement, some comments and conclusions are worth noting in the context of RAs. Key project objectives were revenue related in both cases—to increase the revenue/GDP ratio for Uganda, and to prevent the ratio from deteriorating owing to poor macroeconomic conditions in Zambia. Both projects were considered a success in these areas although, as was the case in other studies, no direct link is made to the RA structure being the cause of the revenue performance improvements. In fact,

the report suggests for Uganda a key reason for the increase in revenue/GDP was DFID support itself, since the ratio subsequently “stagnated (when) DFID’s support was scaled down.” This report also confirms general attribution problems where it noted projects had goals to increase the revenue/GDP ratio but that this ratio “is sensitive to a wide range of other influences...” Specifically regarding RAs, the report concluded that (1) the *de facto* degree of adoption of the RA framework varied from country to country; (2) RAs have led to more flexibility in allocation of RA budgets, but have not brought independence from the state budget; and (3) the RA framework has not led to significant easing of the problems of enforcement.

2.5 Conclusion

There are several common themes that emerge from these varied papers on RAs. With the exception of Jenkins, all the papers grapple with the problem of quantification and how to measure RA performance to assess whether the RA governance model made a difference. In no case were any of the authors able to present or to propose an analytical model that would produce measurable results for the RA. In instances where some quantifiable variables are presented, they are variables that are designed to measure the progress of reform—whether through an RA or through a traditional department of government. Many writers on RAs tend to articulate and discuss objectives for the RA that are in fact objectives for any modernization program. This exacerbates the ability of the RA itself or an external evaluator to isolate the contribution made by the RA governance regime to overall progress on modernization. Based on various descriptions about autonomy, and discussions of the governance model in place for central banks (and the potential benefits if such a model was carried to revenue administration), many have drawn the conclusion that autonomy is good for performance and that more autonomy is better. However, the basis on which this conclusion is reached remains

unclear and largely anecdotal. In addition, there are few descriptions of any specific and practical results directly attributable to autonomy except in generally indirect terms (e.g., ability to pay higher wages, more professional staff, etc). If the autonomy itself cannot be directly linked to improved performance in some way, it is difficult to accept the “more is better” argument.

Finally, the basic problem with the literature to date is really one of measurement. It is extremely difficult to measure the contribution of tax administration generally to particular outcomes because there are so many influences on any one outcome. It is virtually impossible to measure the contribution of the RA governance model specifically to these same outcomes. In most of the literature that tries to assess RAs, the authors are really talking about *any* tax administration, not specifically an RA. For example, consider the simple statement “the revenue authority has increased revenues by 2 percent of GDP over a four- year period.” Some would take this as an indication of success for the RA in question. However, the statement tells us virtually nothing about the performance of the RA (as a tax administration) nor about the contribution of the RA governance model to that performance, as there are literally dozens of factors contributing to this outcome.

3.0 SCOPE AND METHODOLOGY

3.1 Profile of Ghana Revenue Authority (GRA)

In December 2009, the three tax revenue agencies, the Customs, Excise and Preventive Service (CEPS), the Internal Revenue Service (IRS), the Value Added Tax Service (VATS) and the Revenue Agencies Governing Board (RAGB) Secretariat were merged in accordance with Ghana Revenue Authority Act 2009, Act 791. The Ghana Revenue Authority (GRA) thus replaces the revenue agencies in the administration of taxes and customs duties in the country.

The Ghana Revenue Authority (GRA) has been established to:

- Integrate the management of Domestic Tax and Customs,
- Modernise Domestic Tax and Customs operations through the review of processes and procedures.
- Integrate Internal Revenue Service (IRS) and Value Added Tax Service (VATS) into domestic tax operations on functional lines.

The establishment of the GRA is a culmination of years of plans to streamline the administration of tax collection in Ghana which began in 1986 when CEPS and IRS were taken out of the Civil Service and made semi- autonomous and self accounting public sector institutions with separate boards. The same year, the National Revenue Secretariat (NRS) was set up to formulate revenue policies, manage tax reforms and supervise the activities of CEPS and IRS. In 1998, the Value Added Tax Service was established to administer VAT and other consumption taxes. The Revenue Agencies Governing Board (RAGB) also began operations in 2001 to supervise and monitor the operations of the Revenue Agencies. In 2002, the Taxpayer Identification Number was introduced to enhance information interchange and risk profiling. Then in 2004, the Large Taxpayer Unit (LTU) was set up to operate on functional lines as a pilot programme for the future integration of tax administration in Ghana as well as to serve the needs of large taxpayers as a one stop shop operation.

3.2 Methodology

The paper made use of both primary and secondary source of data. Primary data was collected using questionnaires. The secondary data was collected mainly from the database of the Ghana Statistical Service and from other refereed sources. The data collected was analysed using Excel and the results summarized into graphs, trends percentages and scatter diagrams. This study employed two methods or analysis in determining the degree of impact of the merger on the corporate performance of the GRA. Thus qualitative and Quantitative analysis.

The study identified and ranked the perceived impact of the GRA governance model on the sixteen (16) key reform areas of revenue administration reform.

The paper made use of data collected on total yearly revenue and GDP figures from Ghana statistical services for the period 2005 to 2014. The data was further broken down into pre and post merger periods. The pre merger period spans from 2005 to 2009 and post merger from 2010 to 2014.

Revenue – to – GDP ratio per year was determined for both the pre and post merger periods.

The P – value was determined using t -Test of two-sample assuming equal variance, to test the hypothesis of the research.

4.0 RESULTS AND DISCUSSIONS

4.1 Perceived Impact of the Merger on Key Reform Areas

The study identified the following typical revenue administration reform areas. These areas were used as Key Performance Indicators and views were sort on their perception of degree of improvement the Revenue Authority has had on the governance model in order to achieve revenue administration reforms in Ghana.

The respondents were asked to quantify in column 3 the degree of impact of the revenue authority model, using a scale of 1 to 10 (10 being high impact, 1 low and 0 no impact). Integration of tax, provision of momentum for change and increase tax revenues ranked as the top three most improved upon areas and improved introduction of taxpayer segmentation and improved self assessment were the least ranked.

Table 4.0 below highlights the perception of the improvement in the 16 identified key reform areas and their rankings.

Table 4.0 Ranking on Perceived Impact of RA Model on Reform

Rank	Typical Revenue Administration Reform	Average Degree of
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	Areas	Impact
1	Integrate tax administration	9.05
2	Provide a catalyst or momentum for reform	8.67
3	Increase tax revenues	8.23
4	Improve automation	7.92
5	Improve services to the public	7.68
6	Simplify laws, regulations, and procedures	7.35
7	Improve compliance management	7.21
8	Improve budget provision	7.01
9	Improve remuneration	6.80
10	Introduce risk management	6.76
11	Improve human resources regime	6.50
12	Improve public confidence	6.44
13	Improve anti-corruption measures	6.42
14	Improve valuation, classification And Origin	6.34
15	Introduce taxpayer segmentation	6.12
16	Introduce self-assessment	5.98

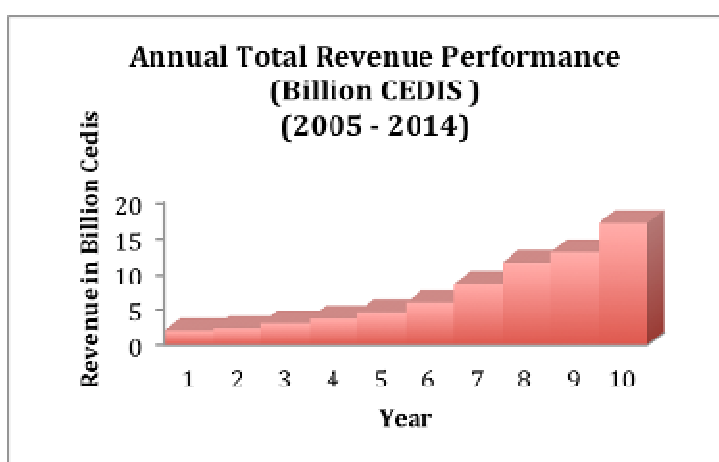
446

447 4.2 Total Revenue Performance for the Period. (2005 – 2014)

448 From the analysis of the data, it was clear that the total annual revenue for the period under
449 consideration has increased positively from year to year and this can be seen in Fig 4.1

450 In the Fig. 4.1 below, the 1 to 10 on the vertical (year) axis represents the years under
451 consideration where year 1 represents 2005 and year 10 represents 2014.

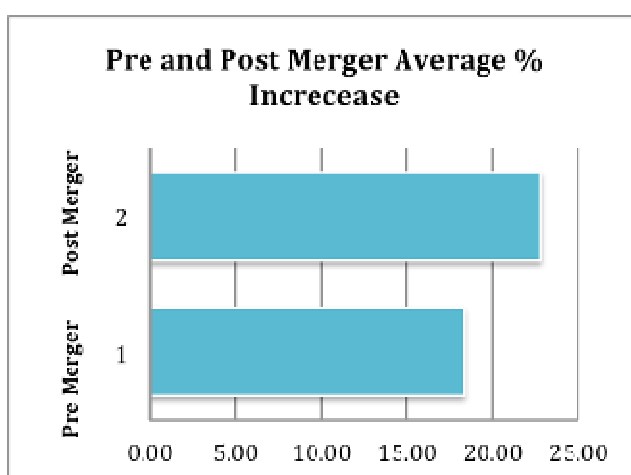
452 **Fig. 4.1 Annual Total Revenue Performance**



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The analysis also revealed that the average rate of increase in revenue from year to year for the post merger period (2010 – 2014) was greater than that of the pre merger period (2005 - 2009) as highlighted by the fig 4.2

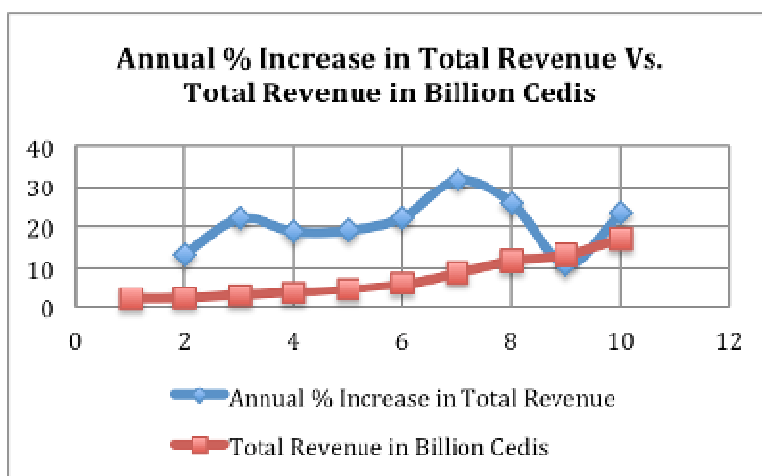
Fig. 4.2 Pre and Post Merger Average Increment



The study also revealed that the highest annual percentage change (i.e. 31.74%) in revenue occurred in the year 2011, which is the second year of the post merger period and this can be seen in Fig. 4.3

This could be due to the fact that the improvement in the various key reform areas was not very much appreciable in the first year of the post merger and it is normal that major strides towards the achievement of the purpose of the merger can always be made from second year onwards.

Fig. 4.3 Annual Total Revenue Vs. Annual % Increase in Total Revenue

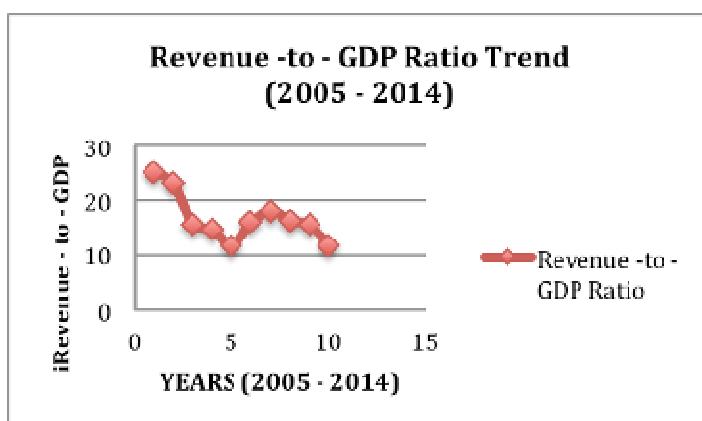


4.3 Revenue – to – GDP Ratio Trend

This ratio is the total government tax collections divided by the country's GDP. When tax revenues grow at a slower rate than the GDP of a country, the tax-to-GDP ratio drops and vice versa. Five years prior to the establishment of the GRA (2005- 2009), revenue – to – GDP ratio has been decreasing. The revenue to GDP ratio decreased from 25.19% in 2005 steadily to 11.6% in 2009 even though revenue increased substantially year in year out over these years. This means that the revenue was growing at a slower rate than the GDP during the period Post merger (2010 - 2014), the revenue – to – GDP ratio rose to 16.01% of GDP in 2010, 18.01% in 2011, dropped to 16.41% in 2012 and further fell to 15.61% in 2013 and finally to 11.78% in 2014 as depicted shown Fig. 4.4 below.

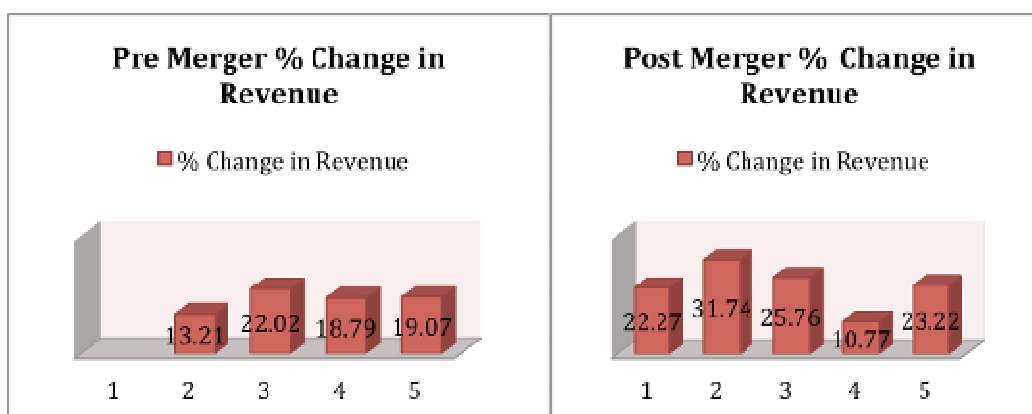
What this means is that even though both the revenue and GDP has been increasing over the years under consideration, the GDP is faster than the growth in revenue. This rapid increase in the GDP of Ghana can be attributed mostly to the addition of the oil and gas revenue to Ghana's GDP from 2011. Hence even though the revenue – to – GDP ratio decrease for some periods after the merger this study can confidently confirm that holding the contribution of the oil revenue component of Ghana's GDP constant, the revenue – to – GDP ratio would have increased steadily and positively for all the periods after the merger of the various revenue agencies into a Revenue Authority.

Fig 4.4 – Revenue – to – GDP Ratio Trend



That is from the post merger part of Fig. 4.5 above, it is evidently clear that since the GRA was established, tax revenue collection increased from 19.07 % in 2009 to 22.27 percent in 2010 and shot to 31.74 % in 2011 then fell to 25.76 in 2012, 10.77 % in 2013 and 23.22% in 2014.

Fig. 4.5 Pre and Post Merger Percentage Change in Revenue



The Table 4.1 below shows the data for total revenue and GDP on yearly basis for the period under consideration. The data was divided into Pre and Post merger periods. Post merger ranges from 2005 to 2009 and 2010 to 2014 makes the post merger period.

The fourth column of the table shows the revenue – t – GDP ratios whilst the fifth and sixth column shows the percentage change in the revenue and GDP respectively for comparison purposes.

Table 4.1 – Total Revenue, Total GDP, Percentage change in Total Revenue and GDP

Year	Total Revenue (Billion CEDIS)	Total GDP (Billion Cedis)	Revenue -to - GDP Ratio	% Change in Revenue	% Change in GDP
Pre Merger					
2005	2.0576	8.1696	25.19		
2006	2.37082	10.24715	23.14	13.21	20.27
2007	3.04026	19.28745	15.76	22.02	46.87
2008	3.74376	25.5028	14.68	18.79	24.37
2009	4.62588	39.85641	11.61	19.07	36.01
Post Merger					
2010	5.95145	37.20336	16.00	22.27	-7.13
2011	8.71853	48.40284	18.01	31.74	23.14
2012	11.74319	71.58213	16.41	25.76	32.38
2013	13.16119	84.2994	15.61	10.77	15.09
2014	17.14212	145.57564	11.78	23.22	42.09

Source: Ghana Statistical service

4.4 Statistical Significance of the Merger

Results of the t-Test of two-sample assuming equal variance gives a $P = 0.003$ which means that there is a significant difference between revenue collected during the pre merger period (2005 - 2009) of the revenue agencies to the post merger period (2010 - 2014) of the GRA. Hence the study rejects the null hypothesis and accept that alternative hypothesis which states the merger of the various revenue agencies in to a revenue Authority otherwise known as Ghana Revenue Authority (GRA) contributed significantly to the improvement in revenue mobilisation. It is difficult to gauge what percentage of this improvement in tax revenue collection can be attributed to improvements in tax administration associated with the establishment of the GRA, especially because some tax rates have increased and new taxes have been introduced. However, it is clear from the opinions of the management and staff of the GRA, data and the results of the analysis that tax administration effectiveness has improved and the level of noncompliance has fallen drastically since the establishment of the GRA till date.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

Overall, there has been a proven improvement in the revenue mobilization and compliance with the tax and the rest of the key reform areas under the revenue authority module.

The main reason for the merger according the information gathered from the experts interviewed was to create the needed synergy in order to enhance or boost revenue mobilization. The study revealed that the revenue – to – GDP ratio has declined over some years even though revenue volumes have been increasing positively year after year. The GDP Ghana therefore grows faster the revenue.

The following could be the cause of the slower growth rate of the revenue compared with the GDP.

The undocumented Ghanaian economy which is undeclared income earned through some economic activity over a period of time.

A large size of the undocumented economy includes cases of non-declaration of income due to ignorance, fear from harsh attitude of tax collector, and low literacy rate. It is estimated that Ghana has an undocumented economy that is quite huge compared to the size of the regular economy. The constant increase in revenue from 2005 to date reflects partly the increase in the role of the revenue agencies and increasing revenue potential of Ghana. Also the sharp increase in the revenue collection after the merger made a strong case for the rationale for creating the GRA

The undocumented economy has been the major cause of low revenue – to – GDP ratio. GRA has tried its best since its inception to get this major chunk of the informal economy into registration but even then the informal sector has been successful in escaping the documentation, for example when VAT mode was introduced in 1998 to collect tax at each stage of supply chain so that every person involved in transaction should be registered, they started practice of fake and flying invoices. Through the use of fake and flying invoices they get

the benefit of VAT modetaxation but the real purpose of getting the economy documented is not being fulfilled.

The various tax amnesties and opportunities towhiten money through different products, have not been too successful to bring enoughpeople into the tax net and the study believes the adoption of a GRA will help widen the tax bracket further to increase revenue.

Ghanas share of taxpayers topopulation is low when compared with a large developing and developed countries.

Socio economic problems facing Ghana are glaring. Poverty and unemployment are some of the social problems which are taking toll on the revenue collection of Ghana. It is so because economic activity has declined and foreigninvestors are reluctant in investing in Ghana. Besides, this economic situation in Ghana not satisfactory. Energy crises is almost destroying the industrial base of Ghana. Most ofindustries are bearing losses and are contributing nothing in Government exchequer in recent years.

Finally, at this point, it is difficult to gauge what percentage of this improvement in tax revenue collection can be attributed to improvements in tax administration associated with the establishment of the GRA, especially because some tax rates have increased and new taxes have been introduced. However, it is clear from the opinions of the management and staff of the GRA and this paper can also argue that the increase in tax rates and introduction of new taxes were as a result of the improvements made in the key reform areas under the GRA which revealed that tax administration effectiveness has improved and the level of noncompliance has fallen drastically since the establishment of the GRA till date. This paper therefore concludes from the discussions and the results of the statistical significance of the merger that, the GRA has helped to increase tax revenue.

4.2 Recommendations

First of all, the Ghana Revenue Authority should be resourced in terms of qualified personnel and equipment in order to properly identify and block the tax leakages as a result of the underground economic activities and also increase the existing tax net.

In addition, there should be a constant public education of Ghanaians on the need to pay taxes and the consequences of tax evasion and avoidance.

Also Ghana's tax non-compliance punishments must be harsh enough to serve as deterrent to other potential tax non-compliers.

Finally the acute power shortages affects the to total output of the industries which results in lower taxes. This paper recommends that Government of Ghana everlasting solution to the frequent power outages in order for industries to get stable supply of electricity to produce more and pay more in tax revenue.

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