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Business Diversification Strategies in the Italian Energy Markets

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***Abstract*—**The liberalization and privatization processes have forced public utility companies to face new competitive challenges, implementing strategies to gain market share and, at the same time, keep the old customers. To this end, many companies have carried out mergers, acquisitions and conglomerations in order to diversify their business. This paper focuses on companies operating in the free energy market in Italy. In the last decade, this sector has undergone profound changes that have radically changed the competitive scenario and have led companies to implement diversification strategies of the business. Our work aims to evaluate the economic and financial performances obtained by energy companies, following the beginning of the liberalization process, verifying the possible relationship with the implemented diversification strategies.

***Keywords*—**Business diversification strategies, M&A, the Italian energy market liberalization, economic and financial performances.

I. Introduction

IN recent years, parallel to the advance of the liberalization and privatization processes, companies operating in the areas of public utilities have shown a particular strategic vitality, witnessed by the diversification of businesses, realized through internal growth or mergers and/or acquisitions. Indeed, in today's economy, the capacity of companies to create value relies on their talent to implement new strategies [1], to face the enhanced competition.

The spread of multi-utility business model has taken place in many industrialized countries with different timing and procedures, following the beginning of the liberalization process of the infrastructure services sectors. Indeed, liberalization, on the one hand, allowed the former monopoly incumbents to enter into related industries in a defensive perspective to compensate the reduction in market share resulting from the market augmented competition, and in an aggressive standpoint seeking new profit opportunities.

On the other hand, new entrants had the opportunity to become providers of services that were previously reserved for state monopolies.

In the last 10 years, Italy has witnessed a phenomenon of business diversification through business combinations, especially among utilities in the energy sector. The reasons which have stimulated this phenomenon in this sector are mainly two. The first input is the increasing convergence between the energy markets of different network industries. In the production phase, for example, gas will be the main fuel used for the new generation of electricity. The second reason is to be found in the distribution phase, where the ability to offer a wide range of services to users (promoting, for example, bundled offers "dual fuel") is crucial.

The purpose of this paper is to analyze the strategies of business diversification implemented by utilities in the Italian energy market following the liberalization of the natural gas and electricity sectors. In particular, we evaluate the performances of energy companies, comparing the mono-business ones with the companies that have focused on a strategy of diversification. The purpose of our analysis is to understand whether the winning strategy is represented by the focus on the core business or diversification of business areas.

The methodology consists of the computation of the main economic and financial indicators, derived from the financial statements for the three-year period 2008-2010. This period has been chosen because 2008 is the first year in which both sectors are fully liberalized. Indeed, while in the natural gas sector the liberalization process has been implemented since 2003, the energy market was fully liberalized only from July 1st, 2007: the date from which all end users are free to choose their supplier on the market.

The paper is organized as follows: Section II provides a description of the business diversification strategies in the energy sectors; Section III illustrates the Italian liberalization process of the natural gas and electricity markets; Section IV explains the methodological approach describing the sample utilized and the analysis performed; Section V presents an analysis of the results; Section VI concludes.

II. Diversification Strategies of Energy Market

With the evolution of liberalization processes, both Italy and the rest of Europe have experience a growing tendency of energy companies to converge on several sectors, giving rise to the model of multi-utility or multi-service firms, i.e. companies that are able to offer a large range of services to the same customer base. The multi-utility sector is attractive for traditional operators (incumbents at national level in the management of a specific service, such as ENI and Enel; former municipal companies operating at a local level by providing a variety of services) that can compensate for any reduction of their market share through diversification into other businesses. The market is attractive also for new entrants that can enter sectors that until recently were foreclosed to

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them. Companies approach the multi-utility strategy to expand the volume of business, to diversify the business risk and to take advantage of economies of scope.

In Italy, the process that led to the spread of multi-utility companies in the energy sector is mainly due to the disintegration of production-distribution-sales chain. Indeed, liberalization has made effective the principle of unbundling, which aims to keep separate the different activities that take place along the production chain. As a result of this new legislation, many companies reacted by making acquisitions, horizontal integrations or conglomerate mergers, becoming multi-business companies. These strategies address the need for energy companies to achieve strategic dimensions to compete at a national level and to reduce the European (E-ON, GDF, EDF, Gas Natural, Endesa) and non-European players pressure (Gazprom, Sonatrach). Indeed, recently some energy international groups from the distribution and sales segments have entered the Italian market through the acquisitions of small and medium sized companies, for example the acquisition of Italcogim by Gaz de France and Dalmine Energie by E.ON.

Diversification strategies of the energy companies allow to obtain benefits such as:

- the integrated management of a greater number of customers, which determines cost reductions.
- The expansion of commercial offer and the ability to implement a dual fuel strategy that increases customer loyalty and brand visibility.
- The advantage in the supply phase through an enhanced contractual power with suppliers.
- The reduction of regulatory risk.

Moreover, the provision of both the energy services (natural gas and electricity) allows to obtain advantages that result in a virtuous circle. Indeed, the importance of natural gas between the fuels used in electricity generation has increased in recent years and the trend seems to persist; as a consequence, securing a supply of natural gas on competitive terms is important for the generation of electricity. Furthermore, for an electricity enterprise only the purchase of large volumes gives access to the best supply conditions of natural gas (both from pipe and LNG). As regards the natural gas companies, the purchase of large volumes of natural gas means the possibility:

- to access to the 'take or pay' contracts deriving from a greater assurance of optimal use of the purchased volumes;
- to make better use of transport capacity on the network and storage capacity;
- to make significant investments with less risk;
- to reduce the variation in seasonal uplifts.

In addition, since natural gas and electricity sectors are capital intensive, conglomerate mergers allow companies to make new investments, otherwise economically unsustainable. Indeed, in order to make new investments, companies need an economic force that small ones do not have.

As regards the benefits in the distribution and sale segments we can identify the following merger synergies:

- advanced technologies in remote meter reading: from an economic standpoint the higher the number of remote meter reading, the more convenient is the remote reading.
- centralization of call centers and emergency services.

Therefore, there are the conditions to gain competitive advantage by applying strategies of business diversification concerning both natural gas and electricity. Our work aims to verify if these benefits have been actually achieved.

III. Natural Gas and Electricity Italian Markets

The European liberalization of the natural gas industry has been introduced through the first gas directive (Directive 98/30/EC) [2], which established common rules on the transmission, storage, supply and distribution of natural gas [3]. In Italy the process of liberalizing the gas market was carried out by means of Legislative Decree N° 164 of 23 May 2000, known as the Letta Decree [4], which laid out important guidelines concerning the definition of eligible customers, competition, and conditions of reciprocity. The Letta Decree also imposed the unbundling of the distribution companies from those in retail, thus allowing the latter to operate in a more competitive market. The system was then divided into companies dealing with the raw material (producers, importers, wholesalers, retailers) and companies providing the system with infrastructure and services (transporters, distributors, LNG plant operators, and storage).

Another crucial point is that the Letta Decree imposes, with effect from 1st January 2003, the full liberalization of the market: all customers become eligible, meaning they can choose the provider that offers the most convenient conditions.

In Italy the liberalization of the electricity market has been achieved by means of Legislative Decree N° 79 [5] of 16 March 1999, known as the Bersani Decree, which implemented Directive N° 96/92/EC of 19 December 1996 [6], concerning common rules for the internal market in electricity. The legislative decree N° 79/99 imposed that production, import, export, purchase and sale of electricity are completely free activities, while transmission and dispatching ones are reserved to the State, which offer a concession to the Gestore della Rete di Trasmissione Nazionale or GRTN (Manager of the National Transmission Grid).

The Bersani Decree also imposes, from the 1st July 2007 that all customers are eligible, realizing the full liberalization of the sector.

The analysis of the effects of liberalization on company strategies is a well established topic in management studies [7, 8].

Two of the most critical factors for companies in relation to liberalization are whether the management is able to cope successfully with the changing external conditions (which are especially important for new competitors entering the market) and whether they can take advantage of the new opportunities offered by the free market. As the market moves towards free

competition, companies must acquire the financial, regulatory, and political skills needed to deal with the consequential emerging risks.

The strategies adopted in reaction to liberalization by companies in the natural gas sector may be divided into two types: those of diversification and those of external growth by means of acquisitions, strategic alliances and mergers with national partners or foreign partners or both. There has been great deal of cross-border convergence with companies from other liberalized sectors (such as electricity) since the onset of the liberalization process, especially in the retail segment. Retail companies clearly stand to gain from bundling services such as, for example, consumers may wish to receive their water, gas, telephone, and electricity bills as one. In a competitive market in which consumers are able to switch suppliers easily, alliances with other utilities or other mass-market retailers are widely used to offer multiple products. Bundling strategies enable utilities to sustain profit margins while gas or electricity margins reduce [9].

IV. Methodology and Data Set

Within the network based industries, following a worldwide wave of privatization, liberalization and sector reforms, the scientific analysis of the variable triangle consisting of competition, privatization and regulation and its effect on economic performance received much attention and resulted in numerous studies [10]. Alongside the surge of liberalization and regulatory reform, there has been increasing interest in the accurate evaluation of public utility performance [11]. In general, the research on the effect of liberalization on economic performance evolves along two methodological strands of literature, either qualitative or quantitative. For example, in the Italian utilities sector, Asquer [12] carries out a qualitative analysis to compare the gas and water energy sectors with regard to the degree of competitive pressure and effect on industry performance. Quantitative researches have been carried out in many utility sectors such as natural gas, electricity, water and telecommunications [13-30]; other studies provide an aggregate measure of relative efficiency for companies within their industry [31].

With regard to the natural gas market, Jamasb et al. [32] investigate the productivity and efficiency of US gas transmission companies from a benchmarking perspective, using data envelopment analysis and Malmquist productivity indices; Capece et al. [33, 34] study the Italian retail market using a cluster analysis. In the same sector, Granderson and Linvill [35] analyze the US natural gas pipeline companies, considering the return on equity and the rate base as measures of financial performance and data envelopment analysis as a measure of cost, technical, and allocative efficiency.

The methodology used in this paper is financial statement analysis [36-38], which is a technique of comparing data from multiple balance sheets and comparing them over time (data from the same company) or space (data from different companies). In this manner it appears possible to study aspects of business management in addition to those expressed by the measure of income and operating working capital within certain limits.

Ratio analysis, which is used to analyze the financial statement, examines the relationships between economic variables and financial assets, included in the balance sheet and income statement (both reformulated). This analysis aims to examine the business management in the following complementary aspects [39]:

- the financial aspect, which examines the relationship between capital requirements and modality means of coverage and the relationship between income and expense cash flows;
- the economic aspect, which studies the relationship between costs and revenues to analyze the profitability of the company;
- the capital aspect, which refers to the relationship between the equity and debt capital.

Management is therefore considered in terms of liquidity (financial aspect), solidity (capital aspect) and profitability (economic aspect).

The financial statement analysis is carried out as follows:

1. data research using the company balance sheets and other non-accounting information useful to the analysis;
2. review of balance sheets and testing the criteria used for evaluation;
3. reformulating of the balance sheets and income statements based on functional goals;
4. assessment of quotients (ratios) of analysis;
5. interpretation of the ratios themselves, in comparison with the values from the balance sheets: examining the same company over various different years (vertical comparisons) then comparing the financial statements of the various companies (horizontal analysis).

This paper focuses on five indicators. Cash flow (CF) is employed as a financial indicator, whilst return on investment (ROI), return on sales (ROS) and return on equity (ROE) are used as the economic indicators. Leverage ratio (LR) is used as an indicator of capital, showing the degree of debt in comparison to equity.

The data set, supplied by the Unione Italiana delle Camere di Commercio (Italian Union of the Chambers of Commerce), comprises data relating to the 90 companies in our sample operating in Italy, including the balance sheet for each company.

With regard to the geographical distribution, 67% of the companies studied are located in northern Italy, 20% in central Italy and the remaining 13% in southern Italy.

In relation to company size, the companies have been divided into three groups according to their revenues: small, medium and large sized companies. ‘Small’ companies are considered to be those with an income of less than €10 million; ‘medium’ are those with an income of between €10 million and €50 million; and ‘large’ those which have an income which is greater than €50 million. Our sample is comprised of 29 small companies (28%), 25 medium companies (32%) and 36 large companies (40%).

Finally, with regard to the choice of strategy, 39 firms are mono-business within the natural gas sector (43.3%), 24 firms

belong to the electricity sector (26.7%), while 27 companies (30%) are multi-business (diversified).

V. Analysis of the Results

Before analyzing the financial statement results, the indicators were normalized in order to make the comparisons more homogeneous.

Tables I and II show the value ranges chosen for the various performance indicators utilized for the analysis of results. The ranges chosen for ROE, ROI, ROS and LR refer to the main literature (see among others [39, 40]).

As regards the assessment of CF, since expressed in an absolute measure (Euros, €), pre-established range cannot be used for all the companies. Therefore, we propose a model for evaluating the CF based on the relationship with the Invested Capital (IC). The purpose of the Cash Flow is to indicate the presence of cash flow within the company such as to ensure its survival. There is no doubt that, with the increase of IC (and therefore the number of assets to preserve), the demand for CF increases as well. This model evaluates the CF in terms of its proportion to the total investment of the company.

TABLE I
Profitability Ranged Indicators

Range	Performance	ROI	ROE	ROS
1	Poor	x<0	x<0	x<0
2	Mediocre	0≤x<8	0≤x<5	0≤x<6
3	Good	8≤x<10	5≤x<8	6≤x<8
4	Excellent	x≥10	x≥8	x≥8

TABLE II
Financial Ranged Indicators

Range	Performance	CF	LR
1	Poor	x<0	x>3
2	Mediocre	0≤x<3%IC*	2<x≤3
3	Good	3% IC*≤x<8%IC*	1<x≤2
4	Excellent	x≥8%IC*	x≤1

*IC= Invested Capital.

For the whole three-year period and for all types of companies a low level of ROS can be observed. Indeed, this index identifies the profitability of sales, i.e. how much of the result of operational management comes from the volume of sales. Since the analyzed companies are retailers, they tend to have a relatively low ROS, because their high volume of sales is not able to generate high profits.

As concerns the profitability of the operational management, it can be observed how, during the three-year period, the best results are achieved by the mono-business companies in the gas sector. More particularly, we can highlight how, for such enterprises, there is a discrepancy between ROI and ROE, the latter always lower than the first. This result can be explained by the huge debt that affects the net profit, reducing both the values of ROE and of the LR range.

In the electricity segment, as regards the mono-business companies, they present an opposite situation with respect to the natural gas ones: ROE is always greater than ROI. This result is due to the low leverage of these firms, as evidenced by a high LR range. Electricity companies are less indebted thanks to greater competition in the upstream phase that allows them to better manage supplies. The natural gas retail companies, on the contrary, often have financial problems, due to the time lag between the purchase of raw materials and the payment by the end users, which constrains them to have greater recourse to debt.

The average CF has almost the same value for all types of companies in the two-year period 2008-2009. In 2010 we can underline a marked improvement in the CF value for the electricity companies. This result is due to the actual improvement in the profitability of the global activities and a careful management of business cycles and working capital.

More in general, we can highlight how the companies belonging to the electricity sector obtain better performances than the natural gas and the multi-business ones. This result is particularly marked in 2010.

The best performance obtained in the electricity sector is mainly due to the evolution of the liberalization process.

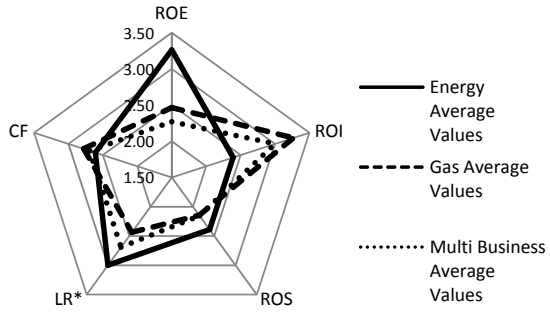

Fig. 1 Main economic and financial indicators in 2008

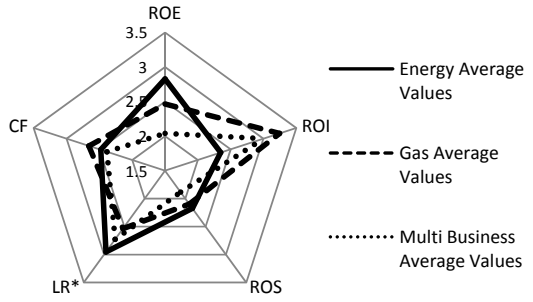

Fig. 2 Main economic and financial indicators in 2009

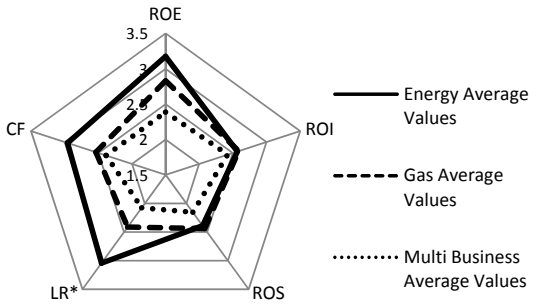

Fig. 3 Main economic and financial indicators in 2010

Indeed, in the Italian energy market, liberalization policies had different timing and effectiveness. In the natural gas sector there are elements of distortion caused by the position of absolute dominance by the incumbent Eni. The liberalization of this sector, carried out by the Letta Decree, is still incomplete, requiring only the legal unbundling and not the ownership one between Eni and the national network of gas transmission.

The lack of independence of the essential facility is not only a significant source of information asymmetries between Eni and its competitors, but has also been used as a mean to perform anti-competitive behavior aimed at damaging the main competitors of the incumbent. In 2012, the new Italian government carried out the "Liberalization Decree" which is aimed to realize the future ownership separation of Snam from Eni, therefore reforming the entire industry. Within two years, a new competitive impulse will be witnessed even in the natural gas sector, thanks to the independence of the operator of the transmission network.

The second reason is structural: each operator in the electricity sector can build a power plant and generate electricity without particular regulatory restrictions or geographical constraints. Therefore, the production is naturally open to competition, and this has stimulated investments in efficient production processes. The retail companies are not forced to get in contact with the incumbent, but they deal with producers in competition with each other.

The electricity sector shows a positive opening to competition, not highlighting specific distortions of the business. This is mainly due to two reasons. The first concerns the effective implementation of the essential facility doctrine: indeed, the National Electricity Transmission Network has been unbundled both at legal and ownership level from the incumbent Enel and given to an independent company, which operates only in the transmission business.

The effectiveness of the two liberalization processes is also evident by comparing the different cumulative switching rates (which show the percentage of total customers who joined the free market).

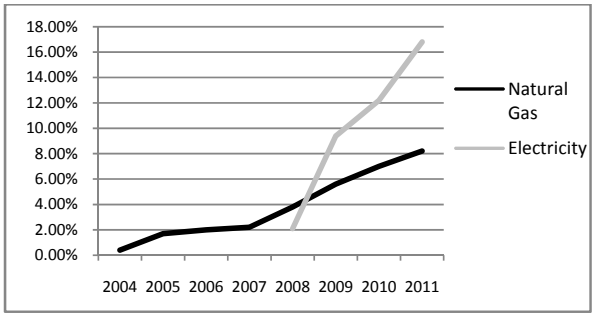

Fig. 4 Cumulative switching rate: Electricity vs Natural Gas

Observing the graph we can highlight that, in spite market opening in the natural gas sector started in 2003, currently the percentage of consumers (households and enterprises) that caters to the free market is only the 8.2%.

The electricity sector, despite the complete opening to the free market took place in 2007, already shows a cumulative switching rate 16.8% which doubles the gas sector one. Even two years after full liberalization, the percentage of end-users free electricity market is far superior to that present in the gas market.

The analysis of radar charts highlights that the multi-business companies achieve the worst performances, result even more evident in 2010.

One possible explanation derives from the fact that multi-business companies are often born from mergers between companies from different sectors and recently established, and therefore they have yet to recover the costs associated with the aggregation and to implement an efficient organizational restructuring.

Another aspect to consider is that the average values of the indicators are pushed down by the small and medium sized multi-utilities, which get the worst results. Indeed, mergers between small-medium sized firms resulted in a limited increase in domestic customers (negligible switching rate) causing their dual fuel offers to fail [41].

In contrast with the small-medium sized firms, large multiutility benefited from the dual fuel offers which were mainly aimed at winning large industrial companies, who are the clients with the highest switching rate.

In addition, the multi-business companies that achieved the best performance are vertically integrated with the ones operating in the production phase of electricity.

Indeed, these companies are able to achieve economies of scope by the gas purchased: they can use it both as a product to sell to final customers and as a fuel for electricity generation. This allows these companies to be extremely flexible and to react in a receptive and fast manner to possible fluctuations in demand for electricity or gas, minimizing the risk of unsold gas. Another aspect to underline is that the majority of these firms are former municipal or resulting from the merger of former municipal ones. Therefore, they can take advantage of having a customer base consisting mainly of historical households, which tend to reluctant to switch supplier. Moreover, this particular type of diversified

companies, due to the benefits deriving from vertical integration and historical inherited customers, hold a significant competitive advantage over other multi-business ones (e.g. mere trader).

VI. Conclusion

The Italian energy companies have faced a new competitive scenario following the liberalization and privatization of the market. Many of these companies have implemented growth strategies both internally and through acquisitions, mergers and conglomerations with other firms, diversifying the business and proposing bundled gas and electricity offers.

In our paper, we evaluate the performance of a sample of 90 Italian energy companies, during the three-year period 2008-2010 in which both sectors were liberalized. The performance evaluation was carried out using an analysis of financial statements and the calculation of the five main economic, financial and liquidity indicators.

The results show that multi-business companies achieve the worst performances throughout the three-year period, except for ROI in 2008 and 2009, where the lowest values are achieved by the mono-business ones in the electricity sector. As regards the multi-business companies, the low value of ROE compared to ROI one, which instead is relatively high, shows a financial situation characterized by a high cost of borrowing. This result is caused by a strategy of diversification deriving from M&As realized through leveraged buy-out with a consequent debt increase.

In 2010 there was an overall worsening of the performance of multi-business companies, which derives from the evident failure of dual fuel offers, as evidenced by the low switching rate of household customers.

There are various reasons underlying the failure of the business diversification strategy. Firstly, since the considered time period is short, it seems physiological that the new companies, resulting from mergers or acquisitions, need more time to recover the integration costs. Even more so, companies which have diversified their business portfolio through internal growth need a long time horizon to develop and introduce in the market new services.

Another reason for the failure of diversification strategies resulting from a M&A may lie in the complexity of managing a successful post-merger integration, which requires a complex administration. However, the effects on post merger organizational efficiency are beyond the aim of this study and could be the purpose of a further development of this work.

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