World Academy of Science, Engineering and Technology
International Journal of Economics and Management Engineering
Vol:11, No:7, 2017

Classification of Business Models of Italian Bancassurance by Balance Sheet Indicators

Andrea Bellucci, Martina Tofi

Open Science Index, Economics and Management Engineering Vol:11, No:7, 2017 publications.waset.org/10007644/pdf

***Abstract*—**The aim of paper is to analyze business models of bancassurance in Italy for life business. The life insurance business is very developed in the Italian market and banks branches have 80% of the market share. Given its maturity, the life insurance market needs to consolidate its organizational form to allow for the development of non-life business, which nowadays collects few premiums but represents a great opportunity to enlarge the market share of bancassurance using its strength in the distribution channel while the market share of independent agents is decreasing. Starting with the main business model of bancassurance for life business, this paper will analyze the performances of life companies in the Italian market by balance sheet indicators and by main discriminant variables of business models. The study will observe trends from 2013 to 2015 for the Italian market by exploiting a database managed by Associazione Nazionale delle Imprese di Assicurazione (ANIA). The applied approach is based on a bottom-up analysis starting with variables and indicators to define business models' classification. The statistical classification algorithm proposed by Ward is employed to design business models' profiles. Results from the analysis will be a representation of the main business models built by their profile related to indicators. In that way, an unsupervised analysis is developed that has the limit of its judgmental dimension based on research opinion, but it is possible to obtain a design of effective business models.

***Keywords*—**Balance sheet indicators, Bancassurance, business models, ward algorithm.

I. Introduction

IN the Italian market, bancassurance is a relevant phenomenon of an insurer offering which developed in the 1990's. It can be defined as the provision of selling of banking and insurance products by the same organization under the same roof [1]; and as a strategy adopted by banks or insurance companies aiming to operate in the financial market in a more or less integrated manner [2]. Through this form of distribution, banks and insurance companies can increase their revenues; from the insurance companies' point of view by using an adjunctive channel and large data base of banks. For banks, it is possible to enlarge their offering with non-life and life products. So, the aim is to realize economies of scale and scope; particularly, the second one which is allowed by the contemporary use of the same banking branch to offer financial and insurance products and services. In that way, fixed costs, linked to banking branches, are absorbed by more commercial activities acted by the same branch's personnel. Thus, two main aims were persecuted by this form of diversification: increase of revenues and reduction of risks for companies [3], [4]. In fact, whereas financial and banking businesses are pro-cyclical, non-life insurance is countercyclical.

The Italian market is one of the most important in terms of life premiums collection and has developed at the end of 19th century within a process of convergence between different sectors of financial intermediation encouraged by the deregulation which started in the '80s. In Europe, the 1989 Second Banking Directive allowed universal banking and unlimited reciprocal participations with investment in insurance companies. But Bancassurance was not developed only for the deregulation process: changes in demand of financial services have been particularly determinant. Household savings have moved from deposits to more remunerative investments determining a dramatic drop in traditional banking profitability. Banks pursued additional revenues by offering investment and insurance products. Life and non-life business have appeared as opportunities related to the progressive ageing of the population in all developed countries and for the decrease in welfare state protection offered by governments, At the same time, similarities and complementarities between banking and insurance activities, especially for life products, make for easier cross-selling [5] .

To pursue their goals, banks and insurance companies have adopted different business models according, in most cases, with short-medium objectives. So, as underlined by literature, actual models are more tied to distributive choices than strategic ones. In Italy, bancassurance is in a transition phase: from a prevalence of distribution agreements, sometimes in joint venture contractual form, it is moving towards more consolidated relationships between banks and insurance companies. The consolidation of business models is required by the decrease of life products' margins and by the opportunity offered by non-life products and services that can increase profitability of bancassurance as a whole.

II. Bancassurance Business Models and Literature Review

Bancassurance has developed in Italy adopting an organizational model coming from France and has been focused on the Life sector and on Credit Protection Insurance linked with loans.

The current classification of business models refers to a legal form adopted for the distribution agreement and, in the literature, is distinguished by three main classes.

The first model is the cross-selling agreement formed by a

Andrea Bellucci is Associate Professor of Accounting at University of Perugia. Italy (corresponding author, phone: 0039-0755855253; fax: 0039-0755855257; e-mail: andrea.bellucci@unipg.it).

Martina Tofi is PhD Student at University of Perugia. Italy (phone: 0039-0755855253; fax: 0039-0755855257; e-mail: martinatofi@hotmail.com)

Open Science Index, Economics and Management Engineering Vol:11, No:7, 2017 publications.waset.org/10007644/pdf

simple partnership where banks sell insurance products through their branches; they can involve one or more companies. It has the advantage to be flexible and does not require capital investments and changes in organizational structure and process. On the other hand, there are some risks related to conflicts of interest between banking and insurance products sharing the same distribution channel. Furthermore, with this agreement banks can only offer simple and standardized insurance products.

The second model is a partnership between two independent partners, realized through strategic alliances, often reinforced by cross ownerships in the form of minority stakes or joint ventures. This organizational form can develop a stronger form of cooperation, aiming to exploit in the best way the skills of every participant, enforcing their specializations: generally, insurance companies take care of product design, while banks realize distribution, and therefore, relevant synergies can be realized concerning competences, cross-selling and scope economies when partners' strategies are convergent.

The third model is the control by ownership: the banking and the insurance activities are managed as completely integrated, under the direction of the same ultimate owner. The bank organizes insurance sales points, often inside its branches, focused on the insurance business, or acquires an insurance company already operating in the market. This model allows a full integration of insurance processes with banking, giving relevant opportunities of scope and scale of economies avoiding the danger of "cannibalization" [6].

These are models from a banking point of view and there are many studies about the efficiency gains from diversification [7]-[9], but non-referred to bancassurance. From an insurance point of view there are some studies, especially on life insurance, which investigated performance levels in insurance companies with different ownership structure and organizational models [10]-[12], and particularly, about the influence of efficiency on profitability [13] and relationship between performance and market structure [14], [15]. Other studies analyze the impact of industry deregulation and consolidation, adopting a single country or a multinational perspective. There are some efficiency studies using frontier methodologies [16] which conclude that the size, market share and a dummy indicating bancassurance companies are all positively related to cost efficiency in a statistically, significant way. Another study, using a stochastic frontier approach, shows, analyzing Portuguese and non-Portuguese life insurance companies, that the bancassurance channel is positive related to cost efficiency [17].

There is a study on bancassurance in Italy which develops, with a stochastic efficiency approach, a comparison between levels of efficiency and profitability of bancassurers against independent insurance companies, impacts of different models of bancassurance on their performances [18].

III. Research Question, Methodology and Sample

This study intends to identify profiles of business models of bancassurance taking into account traditional models in the literature, but using a bottom-up approach which identifies some variables coming from the balance sheet and some variables which are discriminant components of identified business models. This study priority identifies four profiles of business models: a) joint venture; b) captive; c) independent insurance companies, which distributes just by banking branches; and, c) insurance companies which distributes through different channels including banks. In Table I, there are for each profile of business models, discriminants of shareholder ownership of banks and of insurance companies and of use of distribution channels.

TABLE I
Discriminants of Business Models

Business Model Profile	Share Participation	Use of distribution channel
Joint venture	Co-participation by banks and insurance companies	Exclusively banking channel
Captive	Total control by bank	Exclusively banking channel
Independent insurance company	No participation by bank in insurance company	Exclusively banking channel
Insurance company	No participation by bank in insurance company	Use of several channel (including bank branches)

Empirical analysis is developed employing the statistical algorithm proposed by Ward [19], which represents a hierarchical classification method that can be applied to a universe of individual observations. Each of them is described by a set of scores. This is an agglomerative algorithm which starts from individual observations and successively builds up groups (cluster) by joining observations that are closest to each other. It proceeds by forming progressively larger groups maximizing the similarities of any two observations within each group and maximizing the difference across groups. The algorithm measures the distance between two observations by the sum of squared differences of their scores. This approach has been applied for banking sector to identify business models characteristics [20], [21].

Analysis incorporates judgmental elements and is developed in three steps: a) identification of inputs of the model, which include dummies about business models seen above and some balance sheet indicators; b) running the Ward algorithm using the statistical instrument "Stata"; and, c) analysis of the results and values of indicators to identify business models profiles.

As inputs, in addition to business models, proxies are applied: a) three efficiency indicators, as expense ratio, commercial expenses ratio, administrative expenses ratio, b) profit indicator Return on Equity (ROE), and c) weight of investments for financial products on total assets. Differently to the previous studies on banks already mentioned, we have chosen only one item of assets and liabilities, given the particularity of life insurance balance sheet, where through the indicators applied, it is possible to determine the main characteristics of premiums collection.

All inputs are applied simultaneously, given that traditional business models are not considered really consolidated models but organizational form just linked to contractual agreements.

Open Science Index, Economics and Management Engineering Vol:11, No:7, 2017 publications.waset.org/10007644/pdf

So, the analysis represents a non-supervised learning which requires a subjective judgment by the researcher. Its aim is to identify, if present, business models' profiles which are built on the bottom-up approach through some quali-quantitative indicators.

The sample is formed by 24 companies, which represents 70% of the market share of the total life business; the small number of enterprises is linked to the fragmentation of residual market share and membership of traditional insurance companies not adopting the bancassurance channel. The observation's period is 2013-2015, applying average values of the each quantitative indicators.

IV. Results and Findings

Through the statistical software for data analysis, "Stata" four profiles are developed which contain some of the companies which were included in previous business model classifications.

The first cluster that contains all companies characterized by joint ventures and, in addition, Poste Vita, which is captive and the biggest company in regards to value of collected premiums. The second cluster, which includes three captive companies and, in addition, Eurovita, which is an independent insurance companies provider of products for banks. The third cluster is composed of three independent insurance companies and one company, which is a part of an insurance group and distributes through several channels. The fourth cluster includes just companies that distribute through different channels. Table II shows the efficiency and profit performances, weight of financial line on to total assets for each cluster profile.

TABLE II
Mean of Efficiency, Profitability and Ownership (%) Ratios

Summary Statistics: Mean 2013-2015					
Cluster	**Expense Ratio**	**Commercial Expenses Ratio**	**Administrative Expenses Ratio**	**ROE**	**Weight of financial line business (%)**
1	*2.64%*	*1.98%*	*0.65%*	*10.50%*	*21.8%*
2	*1.83%*	*1.43%*	*0.40%*	*27.13%*	*39.5%*
3	*6.48%*	*3.83%*	*2.65%*	*6.17%*	*28.7%*
4	*3.80%*	*2.25%*	*1.65%*	*8.93%*	*9.8%*
Total	*3.30%*	*2.22%*	*1.10%*	*12.99%*	*24.6%*

Analyzing the performances, we can see that the second cluster (captive profile) presents better efficiency and profit performances; in particular, expense ratio is the lowest (1.83%) followed by that of joint venture profile (2.64%); similar results are shown for commercial and administrative expenses. Thus, the captive model, even if it does not include Poste Vita, is the most efficient; after it, joint ventures seem to be efficient followed by insurance companies with a multiplicity of channels. The worst in term of efficiency is the cluster of independent companies, which have probably to pay higher commissions to banking channel. Looking to profitability, the second cluster of captive companies, again, shows the best performances in terms of Return on Equity (27%) and second is joint ventures with 10.5%, followed by companies with mixed channel (8.9%); worst for profitability are the independent insurance companies. It is interesting to analyze at the premiums collection mix that reports a high value of life financial product for captive (39% on total assets) followed by independent insurance companies (28.6% on total assets), followed by joint ventures (21.7% on total assets) and then companies with more channels with 9.7% on total assets. These results are only partially in line with that of Fiordelisi and Ricci: from an efficiency point of view captive companies seem to be the best analyzed against others bancassurance business models and against independent companies in the two papers. In terms of profitability, they show low levels of performances with respect to the high levels registered by this study; in the same direction, there is no coincidence of results about margins of more financial products. In Fiordelisi and Ricci, these products seem to be less costly but less profitable, whereas this study reports better efficiency and profit performances for captive companies with higher collections of life-financial products. These different conclusions can be related to the evolution of bancassurance in Italy, from the period of 2005-2006 of the previous study and this paper. According to the Ania Report "L'Assicurazione Italiana 2015-2016", the life bancassurance market share of joint ventures have decreased from the 50% of 2002 to the 25% of the total market of 2015, while that of captive has increased from 38% of 2002 to 61% of the total life bancassurance market.

The study identifies the captive model as best performer from an efficiency and profitable point of view. At the same time, by adopting this model based clustering, it outlines current heterogeneity of business models in Italian market. These findings have to be considered a first step in building sustainable business models for bancassurance. First of all, it requires a strategic vision by bankers that goes beyond short term. In that way, it is possible to invest in capabilities and on capital to enable an enhanced offering for life and non-life products. Expanding the range of products and including non-life business is possible to increase margins and profitability and establish a more stable premiums collection's trend. In that way, banks can realize an effective diversification of their financial risks.

The limits and points of attention of this study are related to the limited number of companies and of variables analyzed, as well as the brevity of observation period.

References

[1] W. Elkington, "Bancassurance," in *Chartered Building Societies Institutions Journal*, p.2, March.

[2] SWISS RE, Bancassurance, *Sigma*, no. 2/1992, p. 4, Zurich.
[3] J. H. Boyd, S. L. Graham, R. S. Hewitt, "Bank Holding companies mergers with nonbank financial firms: effect of the risk of failure," *Journal of Banking and Finance* 17:1, pp. 46-63.
[4] N. Genetay, P. Molyneux, Bancassurance. London: Macmillan Press,1998.
[5] R. Locatelli, C. Morpugno and A. Zanette, "L'integrazionetrabanche e compagnie di assicurazione e ilmodellodeiconglomeratifinanziari in Europa,"in F. Cesarini (ed.) *Le strategie delle grandi banche in Europa*. Rome: BancariaEditrice, 2003.
[6] G. Berghendal, "The profitability of bancassurance for European banks,"*International Journal of Bank Marketing*, XIII, pp.17-28, 1995.
[7] L. Allen and A.Rai, "Operational efficiency in banking: an international comparison," *Journal of Banking & Finance*, XX, vol.4, pp.655-672, 1996.
[8] R. Vander Vennet, "Cost and profit efficiency of financial conglomerates and universal banks in europe," *Journal of Money, Credit and Banking*, XXXIV, vol. 1, pp. 254-282, 2002.
[9] B. Casu and C. Girardone, "Financial conglomeration: efficiency, productivity and strategic drive," *Applied Financial Economics*, XIV, vol.10, pp. 687-696, 2004.
[10] D. Cummins, M. Weiss H.Zi, "Economies of Scope in Financial Services: a DEA Bootstrapping Analysis of the US Insurance Industry," working paper, The Wharton School of the University of Pennsylvania, 2003.
[11] D. Cummins, G. Turchetti and M.Weiss, "Productivity and technical efficiency in the Italian insurance industry," Working paper n.97/03, Wharton Financial Institutions Centre, 1996.
[12] D.Cummins and M. Rubio Misas, " The effect of organizational structure on efficiency: evidence from the Spanish insurance industry," *Journal of Banking and Finance*, 28: 12, pp. 3113-3150, 2004
[13] W. H. Green, D. Segal, "Profitability and efficiency in the U.S. life insurance industry," *Journal of Productivity Analysis*, 21:3, pp.229- 247, 2004.
[14] P. Fenn, D. Vencappa, S. Diacon, P. Klumpes and C. O'Brien, "Market structure and the efficiency of European insurance companies: a stochastic frontier analysis," *Journal of Banking and Finance*, 32: 1, pp.86- 100, 2008.
[15] J. A. Bikkerand M. Van Leuvensteijn, "Competition and efficiency in the Dutch life insurance industry," *Applied Economics*, 40: 16, pp.2063-2084, 2008.
[16] T. Hwang and S. Gao, "An empirical study of cost efficiency in the Irish life insurance industry," *International Journal of Accounting, Auditing and Performance Evaluation*, 2:3, pp.264- 280, 2005.
[17] C. B. Barros, N. Barroso and M.R. Borges, "Measuring efficiency in the life insurance industry with a stochastic frontier model," paper presented at the 28 International Congress of Actuaries, May 28- June 2, 2006, Paris.
[18] F. Fiordelisi and O. Ricci, "Bancassurance efficiency gains in the insurance industry: the Italian case," *European Journal of Finance*, 9-11, vol. 17, pp.789-810,2011.
[19] J. H. Jr. Ward, " Hierarchical grouping to optimize an objective function," *Journal of the American Statistical Association*, no.58, pp. 236-244, 1963.
[20] R. Roengpitya, N. Tarashev, K. Tsatsaronis, "Bank business models," *BIS Quarterly Review*, December 2014.
[21] R. Ayadi and W. de Groen, "Banking business models monitor 2014," Europe Centre for European Policy Studies and International Observatory on Financial Services Cooperatives, 2014.

Open Science Index, Economics and Management Engineering Vol:11, No:7, 2017 publications.waset.org/10007644/pdf