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The Post-Merger Performance: Evidence From Italy

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University of Cassino and Southern Lazio, Cassino, Italy

The objective of this paper is to investigate whether mergers create value for shareholders in both the short and long term. For this purpose, 120 announcements of mergers that were registered in Italy during the period 1994-2006 among listed companies were examined. The short-term analysis was conducted using the event study methodology in order to estimate the cumulative abnormal returns (CARs) in the time window around the announcement date (-10, +10). In this work, the sample of 120 mergers was divided into two subsamples: the first considers the mergers that were carried out in all sectors of the economy, and the second focuses only on bank mergers. From the results obtained it would appear that, while the sub-sample of all mergers registered a statistically significant value creation for the shareholders of both the bidder and target companies, values also confirmed by combined analysis, the second sub-sample registered negative values for bidder companies and positive values for target companies. Negative values also seem to be confirmed by the results of the combined analysis both at the date of announcement and throughout the entire period of observation. For the long-term analysis, the Buy and Hold Abnormal Returns (BHARs) methodology was used, with which it was possible to observe the returns for three years. In the 36 months following the merger, the portfolios showed a significant destruction of value.

Keywords: post-merger performance, Buy and Hold Abnormal Returns (BHARs), Cumulative Abnormal Returns (CARs), banks, Italian stock market, event study

Introduction

In Italy, the market for Mergers and Acquisitions (M&As) has shown an upward trend during 1990s, continuing more slowly during the last decade. In particular, there has been a significant trend during the time period 1994-2000 and another more restrained trend in the period 2001-2006. In the period under study, a “liveliness” was detected in the banking sector in the midst of a reorganization process which began in the early 1990s.

From 1994 to 2006, the value of M&As has varied from 20,000 million to 140 billion euros in 1999. From 2000 to 2006 it rose from 129 billion to 100 billion euros (KPMG, Annual report). The average value of transactions stood between 30 million and 260 million euros in the period examined. The market value of the targets amounted to 208,068 million euros and that of the bidders around 467,484 million euros. The relative size assumed values of 44.51% (see Table 1).
The market value of the bank targets stood at over 53,000 million euros and that of the bidders at 251,714 million euros, for a relative size equal to 21.26%.

Table 1
Number of Mergers Announcements, Market Value of Bidder and Target, Total Market Value and Relative Size of Sample for the Period 1994-2006 (The Data Are in Millions of Euros)

<table>
<thead>
<tr>
<th>Period</th>
<th>Announcements</th>
<th>MV_B</th>
<th>MV_T</th>
<th>Relative Size</th>
<th>MV_B+T/MV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>4</td>
<td>2,993</td>
<td>981</td>
<td>32.76%</td>
<td>2.55%</td>
</tr>
<tr>
<td>1995</td>
<td>10</td>
<td>4,847</td>
<td>2,187</td>
<td>45.12%</td>
<td>4.10%</td>
</tr>
<tr>
<td>1996</td>
<td>10</td>
<td>15,165</td>
<td>12,300</td>
<td>81.11%</td>
<td>13.55%</td>
</tr>
<tr>
<td>1997</td>
<td>6</td>
<td>5,539</td>
<td>4,703</td>
<td>84.91%</td>
<td>3.25%</td>
</tr>
<tr>
<td>1998</td>
<td>13</td>
<td>41,006</td>
<td>10,140</td>
<td>24.73%</td>
<td>10.54%</td>
</tr>
<tr>
<td>1999</td>
<td>7</td>
<td>75,069</td>
<td>19,753</td>
<td>26.31%</td>
<td>13.05%</td>
</tr>
<tr>
<td>2000</td>
<td>7</td>
<td>18,017</td>
<td>7,011</td>
<td>38.91%</td>
<td>3.06%</td>
</tr>
<tr>
<td>2001</td>
<td>10</td>
<td>122,175</td>
<td>30,546</td>
<td>25.00%</td>
<td>25.78%</td>
</tr>
<tr>
<td>2002</td>
<td>16</td>
<td>66,966</td>
<td>18,892</td>
<td>38.91%</td>
<td>16.75%</td>
</tr>
<tr>
<td>2003</td>
<td>6</td>
<td>2,886</td>
<td>19,523</td>
<td>676.39%</td>
<td>4.60%</td>
</tr>
<tr>
<td>2004</td>
<td>2</td>
<td>34,869</td>
<td>37,529</td>
<td>107.63%</td>
<td>12.46%</td>
</tr>
<tr>
<td>2005</td>
<td>8</td>
<td>43,577</td>
<td>6,068</td>
<td>13.93%</td>
<td>7.34%</td>
</tr>
<tr>
<td>2006</td>
<td>5</td>
<td>34,375</td>
<td>38,437</td>
<td>111.81%</td>
<td>9.48%</td>
</tr>
<tr>
<td>1994-2006</td>
<td>104</td>
<td>467,485</td>
<td>208,069</td>
<td>44.51%</td>
<td>10.49%</td>
</tr>
</tbody>
</table>

Descriptive statistics of the sample

<table>
<thead>
<tr>
<th>Measure</th>
<th>Value</th>
<th>MV_B</th>
<th>MV_T</th>
<th>Relative Size</th>
<th>MV_B+T/MV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>8</td>
<td>35,960</td>
<td>16,005</td>
<td>99.76%</td>
<td>9.89%</td>
</tr>
<tr>
<td>Median</td>
<td>7</td>
<td>34,375</td>
<td>12,300</td>
<td>38.91%</td>
<td>9.48%</td>
</tr>
<tr>
<td>Min</td>
<td>2</td>
<td>2,886</td>
<td>981</td>
<td>13.93%</td>
<td>2.55%</td>
</tr>
<tr>
<td>Max</td>
<td>16</td>
<td>122,175</td>
<td>38,437</td>
<td>676.39%</td>
<td>25.78%</td>
</tr>
</tbody>
</table>

Note: Sixteen announcements were subtracted from the 120 initial announcements because of a lack of data. The market value of bidder and target refer to the last year prior to the merger announcement. MV is the overall market value.

On average, the total value of the companies involved in the merger process has affected 9.89% of the total market value. In the period 1994-2006, their weight was equal to 10.49% of the total capitalization of the Italian stock market and the highest value was recorded in 2001 and 2002 with a number of transactions equal to 10 and 16 and an average of 8. The MV average of bidders and targets amounted to around 35,960 and 16,005 million euros, respectively. During the reporting period, average (9.89%) and median (9.48%) took on very similar values.

The objective of this work is to investigate the value created (or destroyed) by the merger transactions in both the short and long term. In particular, starting from 120 merger announcements registered during the period 1994-2006, the equity performance of bidders and targets were investigated in the period around the announcement date of the deal. The total sample was divided into two sub samples (banking and non-banking), which were examined during the 20 days around the announcement date with the event study methodology for the short term and the Buy and Hold Abnormal Returns methodology (BHARs) for the long term. The post-merger performance of 40 bidders was observed in the three years following the merger.

The short-term results indicate a destruction of value for the bidders of the banking sector and statistically significant and positive cumulative abnormal returns for the targets. The non-banking sample, on the contrary, shows a significant value creation for shareholders of both bidder and target companies.

The long-term analysis, however, shows a high and statistically significant destruction of value for both samples,
and the tendency of the portfolio of non-banking bidders to increase losses compared with the banking portfolio.

**Literature Review**

M&As are one of the most explored areas of research. The majority of empirical studies examines M&As together, with no differentiation between the two types of transactions. The results found do not allow to come to a clear conclusion\(^1\). For example Dodd and Ruback (1977), Kummer and Hoffmeister (1978), Bradley\(^2\) (1980), Jarrell and Bradley (1980), Asquith, Bruner, and Mullins (1983), Bradley, Desai, and Kim (1988) and Franks and Harris (1989), found significantly positive values for both bidder and target companies.

Smith and Kim (1994) examined 177 bidders and targets in the period 1980-1986 in the 10 days around the announcement date and found negative and significant values for the bidders equal to -0.23%. Walker (2000), on a sample of 278 M&As during the period 1980-1996 in the four days around the announcement date, found negative and significant values (-0.84%) for the acquiring companies.

Sudarsanam and Mahate (2003), after examining a sample of 519 buyers in the period 1983-1995, found negative and significant values in both the short and long term. The abnormal returns in the following 750 days range from -8.71% to -21.89% and are all statistically significant regardless of the methodology used\(^3\).

Campa and Hernando (2004) investigated 262 M&As announcements involving EU companies in the period 1998 to 2000 and concluded that the targets, on average, registered positive and statistically significant cumulative abnormal returns of 9%, the CARs of the bidders, in contrast, do not appear significantly different from zero, and, in relation to cross-border M&As, in certain cases assume negative values.

Instead, Martynova and Renneboog (2006), after examining a sample of 3,216 M&As announcements of 25 European countries, during the period 1993-2001, found in most cases positive values for both companies in almost all time frames observed.

Sudarsanam and Mahate (2006), after examining a sample of 519 buyers in the period 1983-1995 and considering multiple methods and multiple contexts (friendly, hostile, white knight, and multiple hostile) confirmed negative values throughout the pre and post acquisition period.

With regard to the short term results on mergers, there are the works of Asquith (1983), Eckbo (1983), Asquith, Bruner, & Mullins (1983), which found abnormal positive values for both bidder and target companies in the month from the date of announcement of the mergers. Dodd (1980) instead examined a sample of 151 merger proposals during the period 1971-1977 and found that at the announcement date the abnormal return for the target was more than 13% while for the bidder it was negative and equal to -1.09%\(^4\).

Jensen and Ruback (1983) examined the results of several studies and concluded that the target companies recorded values of 20%, while the bidders accomplished zero in the case of successful mergers. On the contrary, in the case of unsuccessful mergers, both companies registered negative values.

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1 For a thorough review, please refer to Agrawal and Jaffe (2000), Bruner (2003), Tuch and O’Sullivan (2007).
2 Dodd and Ruback (1977), Kummer and Hoffmeister (1978), Bradley (1980) divide the sample into successful and unsuccessful transactions.
3 Sudarsanam and Mahate (2003) use four different methods: market adjusted, mean adjusted, size-adjusted, and market to book value adjusted. The observation period varies from -1 +1 +41 to +750 days.
4 Dodd’s study differs from the others for two reasons. On the one hand, the author establishes the event date as the date of announcement and not of completion of the transaction, and on the other hand, it is the first work that uses daily returns instead of monthly ones.
Franks, Harris, and Titman (1991) and Servaes (1991) found positive and statistically significant values for the target companies and negative values for the bidders.

Healy, Palepu, and Ruback (1992), during the 10 days around the announcement date in the period 1979-1983 on a sample of 50 large U.S. industrial mergers, found positive, high and statistically significant values for the target companies equal to +45.6% and negative but not significant values for the bidders (-2.2%). From the combined analysis they found positive and statistically significant values of +9.1%.

N. Kohers and T. Kohers (2000) examined a sample of 1,634 mergers between high-tech companies in the period 1987-1996 and found positive and statistically significant values (+1.37%) for bidder companies between the announcement date and the day following the announcement, regardless of the method of payment of the merger. Andrade, Mitchell, and Stafford (2001), on a sample of 4,256 mergers completed between 1973 and 1998, found positive and significant values for the target companies and negative but not significant values for the bidders. The combined analysis of values shows a significant creation of value equal to 1.8% in the three days around the announcement date.


Malatesta (1983), for example, after examining 336 mergers during the period 1969-1974, found negative and significant average abnormal returns (-5.4%) for acquiring companies in the six months following the public announcement of the merger, while during the same period, the acquired companies experienced positive and significant abnormal returns equal to 7.0%. In the 12 months post-merger, considering the date of approval of the merger, the average abnormal returns were highly negative (-13.7%) and statistically significant.

Franks and Harris (1989), on a sample of more than 1,800 mergers in the UK in the period 1955-1985, found that the acquiring companies registered significant and negative abnormal returns (-12.6) in the two years following the completion of the merger.

Franks, Harris, and Titman (1991) investigated a sample of 399 acquisitions in the U.S. during the period 1975-1984, using different dates of announcement and in the following 36 months found values with different signs depending on the benchmark used. While confirming the presence of negative post-merger performance, the authors attribute this phenomenon to “benchmark errors”.

Loughran and Vijn (1997) investigated a sample of 788 U.S. mergers during the period 1970-1989 and in the five years post-merger found size and book-to-market adjusted BHARs equal to -15.9%.

Gregory (1997) observed a sample of 452 M&As in the UK during the period 1984-1992 using six different benchmarks and pointed out negative and statistically significant and variable CARs between -11.8% and -18%.

Rau and Vermaelen (1998), in the period 1980-1991 in the U.S., observed a sample of 3,169 mergers and found negative and statistically significant values equal to -4.04% in the three years following the merger. In the same period for a sub sample of glamour buyers, they found negative and significant abnormal returns of -17.26%. The authors concluded by confirming the underperformance in the long run for mergers and small but significant positive abnormal returns for buyers in the tender offers.

Mitchell and Stafford (2000) examined a sample of 2,068 acquiring companies during the period 1961-1993...
and through the construction of two different Equal-Weight (EW) and Value-Weight (VW) portfolios found negative and significant abnormal returns in the three years’ post-merger varying between -5% and -9% for the EW portfolio and an abnormal but not significant return of -1.4% for the VW portfolio.

N. Kohers and T. Kohers (2000) examined a sample of 304 mergers between high-tech firms in the period 1984-1995 and found negative (-37.39%) but not statistically significant values in the five years after the merger.

Black, Carnes, and Jandik (2001) during the period 1985-1995 examined 361 successful U.S. bidders and found BHARs ranging between -13.2% and -22.9% for the following three and five years, respectively.

Ferris and Park (2002) investigated a sample of 56 mergers in the telecommunications sector in the period 1990-1993 and found negative (-19.80%) and statistically significant values in the five years following the merger.

With regard to the banking sector next to the event study methodology, it is common to use the accounting approach and the analysis shifts to the observation of the evolution of fiscal indicators (ROE, ROA, operating income, cost/income ratio, etc.) monitoring them throughout the period before and after the transaction. For example, Berger, Demsetz, and Strahan (1999) considered the static and dynamic analysis of the effects of M&As. The case of economies of scale and scope of the transactions under consideration are the focus of static research, while the observation of accounting ratios, the search for efficiency and increased profitability achieved through cost reductions and/or revenue growth, are elements that characterize the dynamic analysis.

Vander Vennet (2002) and Focarelli and Panetta (2003) found that the efficiency resulting from risk diversification can be achieved in the short term, while the benefits to be gained through economies of scope and cost reduction calls for a longer period of time to achieve them.

Piloff (1996) examined 48 banks during the period 1982-1991, using both the first and second approach, and did not find significant changes in performance in the two years following the merger.

DeLong (2003) investigated 54 bank mergers during the period 1991-1995 and found that the only variable that can explain the differences in long-term performance is the relative volatility of earnings. This shows that banks mergers get small benefits from the diversification strategy.

Gupta and Misra (2007) examined 503 mergers during the period 1981-2004 in the three days around the announcement date and found significant losses for the bidder banks (CARs -1.84%) and significant and positive returns for the target banks (CAR +16.12%). In the long term, they examined 214 transactions and in the following 24 months they found positive and significant values (BHAR +4.64%).

More solid evidence to support the benefits of M&As can be found in the work of Haynes and Thompson (1999), who after examining a sample of 93 British companies in the period 1981-1995, found significant and substantial returns in terms of efficiency in the five years after the event.

With regard to the event study methodology, the contributions of Neely (1987) are noted, who after observing a sample of 26 transactions in the period 1979-1985 found positive but not statistically significant values for the bidders. Becher (2000) examined 558 bank mergers in the period 1980-1997 and also found positive and significant values for the targets (CAR +22.64%) and insignificantly positive values for the bidders (CAR -0.1%). In the same work, however, after observing the sub-period 1986-1990, he found negative and significant values for the bidders (CAR -2.14%).

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5 Becher (2008) examined 619 operations which were carried out between 1993 and 1994 and found confirmation in the previous results. During this period, the banking sector, however, subject to the reformation, showed insignificantly negative values for the bidders (-0.61%).
The results achieved by Baradwaj, Fraser, and Furtado (1990), Cornett and Teharian (1992), DeLong (2001), Houston, James, and Ryngaert (2001) seem more solid, they found high and significantly positive values for the targets and significantly negative values for the bidders. Similarly to the work of Becher (2000), Houston, James, and Ryngaert (2001) also found significantly negative and higher values for the bidders by examining the sub-period 1985-1990.

Conversely, the results that emerge from an examination of the M&As in the European banking sector prove to be more fragmented.

Cybo-Ottone and Murgia (2000), for example, investigated 54 transactions in the period 1988-1997 and found significantly positive values for both bidders (CAR +2.19%) and targets (CAR +15.30%).

Among the studies that examine M&As in Italy it is noted the work of Bigelli and Mengoli (1999), who after examining the acquisition announcements of 56 listed companies in the period 1989-1996, found values insignificantly different from zero (CAR + 0.48 %) for the bidders in the 30 days around the announcement.

Rossi (2005) studied 12 events of M&As involving 29 large Italian companies during the period 1999-2003, and overall found results that were in line with other works: a loss of value for the bidders and an increase for the targets in the 30 days around the announcement. Unlike the bidders, however, on the day of the announcement, the abnormal returns of the targets were significantly positive (+2.86%)\(^6\).

With reference to the Italian banking sector, some works dwell on the operational (or accounting) approach, and others on the event study approach and still others on both.

Resti (1998), for example, found an improvement in the efficiency and productivity of merged banks compared with a similar sample that was not involved in M&As during the period 1988-1998.

Resti and Siciliano (1999) restricted the analysis to a sample of acquisitions on 14 Italian banks (nine acquired and five buyers) in the period 1992-1997 and observed the behavior of the returns in three time windows, finding positive cumulative abnormal returns for both buyers and acquired companies, and for the latter even negative values in one of the three time windows. The two authors also proceed, through some fiscal indicators, with a check on the possible link between stock market performance and fundamentals and concluded that there is albeit weak correlation between CARs and fundamentals.

Ferretti (2000) examined 75 announcements for bank takeovers in the period 1994-2000, out of these, 35 were Italian banks and 40 were banks in European countries. The author observed the reaction of the market in three time windows, considering the bidders only, and concluded that the negative abnormal returns of Italian banks are more substantial than those of banks in other European countries.

Savona (2002) also examined the bidders only, considering the period 1989-1997, and found close to zero values in two time windows out of three. Considering the period that goes from the date of the announcement, the one in which the boards of directors have deliberated, until the 50 day after, he found negative CARs and concluded that on average the transactions examined did not create value.

\(^6\) The sample examined was initially composed of 29 transactions involving multiple industrial sectors which involved bidders and targets. Only for seven operations was it possible to examine the targets, because in the other cases, they were not listed or there was not any data, this latter case being frequent in mergers where the merged company disappears from the list. Therefore, it is clear that the reduced sample size and the inability to examine all targets do not allow to formulate a completed opinion, but simply allows to express a broad opinion.
Focarelli, Panetta, and Salleo (2002) found an improvement in ROE due to a more efficient use of capital and the utilization of tax benefits. The acquired company showed an increase in profitability which, according to the authors, is related to the improvement of the quality of the loan portfolio.

Intrisano and Rossi (2012) examined a sample of 72 M&As in the banking sector during the period 1994-2005 and found values in line with literature: the bidders registered negative and statistically significant abnormal returns and the targets positive and highly significant values. The results of the combined analysis point to a statistically significant value destruction.

**Data and Methodology**

The sample examined was made up of 120 mergers transactions carried out during the period 1994-2006. Its construction required the fulfilment of at least four requirements:

1. Knowledge of the announcement date of the merger and its retrieval through the database of Il Sole 24 Ore, an Italian financial newspaper;
2. The presence of listed ordinary shares both for the bidder and target companies;
3. The continuous time series of prices of the ordinary shares which was acquired by Datastream;
4. The presence of a significant number of bidders for the whole period 1994-2006.

The data relating to the merger transactions were acquired by the Commissione Nazionale per le Società e la Borsa (CONSOB) and from the Bollettini di Vigilanza of Bankitalia.

The abnormal returns in the short term were calculated using the market adjusted model (or index model) for the full sample and the MIBTEL index was used as a benchmark. For the statistical significance the methodology of Brown and Warner (1985) was used.

The abnormal returns were estimated as follows:

\[
AR_{it} = R_{it} - R_{mt}
\]

where \(R_{it}\) and \(R_{mt}\) are respectively the return of the \(i\)-th security and of the “portfolio” at time \(t\) during the monitoring period, considering 234 days as the estimate range (-244, -11).

The Cumulative Abnormal Returns Standardized (CARs) were calculated as follows:

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7 The sample made up of bank shares was also analyzed using the method of Fama, Fisher, Jensen, and Roll (1969). The different methods lead to similar estimates (Brown & Warner, 1985).
8 During the period of analysis two events were frequently registered: (1) that the bidders, in turn, became targets and were delisted; (2) that on the same day, the bidders announced their merger with multiple targets. However, in view of 120 announcements, it was not possible to examine a symmetric sample. The post-merger performances, however, were observed up to the delisting of the bidder.
9 The sample made up of bank shares was also analyzed using the method of Fama, Fisher, Jensen, and Roll (1969). The different methods lead to similar estimates (Brown & Warner, 1985).
10 The MIBTEL index is a general basket which includes all the shares listed on the stock exchange and has been active since January 3, 1994. It is a value weighted index that is calculated every minute during the continuous trading phase on the basis of prices. It is preferred to use this index, representative of all securities listed on the Italian stock market, because it is larger and closer to the “market portfolio”. It is important to note, finally, that in calculating the returns, all the adjustments (dividends, stock splits, etc.) have been taken into account. Hence, the prices for both the securities and the basket are “Official Price” and “Price Index”, respectively, and were taken, as mentioned above, from Datastream. Currently, it is no longer active as it has been replaced by the FTSE Italy all-share.
11 The sample of bank mergers was also observed in the time window of 120 days around the announcement date but using different time windows including that of 20 days around the announcement date (-10, +10), through which it was possible to compare the results with those obtained from the sample of total mergers. The decision to investigate the bank sample in a longer time window comes from the fact that the procedure for bank mergers is more complex at the procedural level.
Assuming a “buy and hold” strategy for the entire event period.

In order to investigate the market reaction to the announcement of the merger, two different time windows around the date of the event have been identified \((-10, +10)\) and \((-5, +5)\) as well as other asymmetric periods with respect to this date. In particular \((-1, 0)\), the banking sector has also used the window \((-60, +60)\) and \((-30, +30)\) for the following period.

Finally, to quantify the value created or destroyed by the transactions as a whole, the combined values of the ARs, and similarly of the CARs, were calculated using the following formula:

$$\text{AR}_i(t) = \frac{\text{MV}_{B,j}}{\text{MV}_{B,j} + \text{MV}_{T,j}} \times \text{AR}_{B,i}(t) + \frac{\text{MV}_{T,i}}{\text{MV}_{B,j} + \text{MV}_{T,j}} \times \text{AR}_{T,j}(t)$$

where \(\text{AR}_i(t)\), \(\text{AR}_{B,i}(t)\), and \(\text{AR}_{T,j}(t)\) represent the abnormal returns at time \(t\) for the transaction \(i\), \(\text{MV}_{B,i}\) and \(\text{MV}_{T,j}\) the capitalizations of the bidder and target companies, respectively of the last day of estimate.

To estimate the long-term abnormal returns, the Buy and Hold Return methodology was used, as suggested by Barber and Lyon (1997).

The returns of the sample firms were calculated as follows:

$$\text{BHR}_{i,T} = \left[ \prod_{t=1}^{T} (1+\text{R}_{i,t}) \right] - 1$$

where \(\text{R}_{i,t}\) is the return of the firm \(i\) in the month of event \(t\) and \(T\) is the holding period (\(T = 12, 24, 36\) months for a total of 756 days). For an equally-weighted portfolio of stock, the returns are calculated as:

$$\text{BHR}_{P,T} = \frac{1}{n} \sum_{i=1}^{n} \text{BHR}_{i,T}$$

where \(\text{BHR}_{P,T}\) is the average BHR of the portfolio, \(n\) is the number of stocks in the portfolio, and \(T\) is the time period for which the BHR is calculated.

The next step consisted in estimating the Buy and Hold Abnormal Returns and the Buy and Hold Average Abnormal Returns as follows:

$$\text{BHAR}_{i,T} = \prod_{t=1}^{T} (1+\text{R}_{i,t}) - \prod_{t=1}^{T} (1+\text{R}_{\text{benchmark},t})$$

$$\text{BHAAR}_{i,T} = \frac{1}{n} \sum_{i=1}^{n} \left[ \prod_{t=1}^{T} (1+\text{R}_{i,t}) - \prod_{t=1}^{T} (1+\text{R}_{\text{benchmark},t}) \right]$$

The statistical significance of \(\text{BHAR}_{i,T}\) was calculated as follows:

$$t_{\text{BHAR}} = \frac{\text{BHAR}_{i,T}}{\sigma(\text{BHAR}_{i,T}) / \sqrt{n_i}}$$

Similarly for \(\text{BHAAR}_{i,T}\):

$$t_{\text{BHAAR}} = \frac{\text{BHAAR}_{i,T}}{\sigma(\text{BHAAR}_{i,T}) / \sqrt{n_i}}$$
Where $\sigma(BHAR_{it})$ and $\sigma(BHAAR_{it})$ represent the cross-sectional sample standard deviation of the returns of $n$ firms and $n_t$ is the number of Mergers in month $t$.

**Results and Discussion**

Table 2 shows how the bank mergers registered negative values for bidder companies and positive values for the targets. With the exception of the three days around the announcement date, the values of which are not significant, in the remaining cases, the values are negative and statistically significant for the bidders, while for the target companies they are always positive and statistically significant. In a single sub-period, the bidder company recorded positive (0.81%) and statistically significant abnormal returns.

Table 2

<table>
<thead>
<tr>
<th>Time</th>
<th>CAARs$_b$</th>
<th>Z-test</th>
<th>%Pos</th>
<th>CAARs$_t$</th>
<th>Z-test</th>
<th>%Pos</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-5, +5)</td>
<td>-0.63%$^b$</td>
<td>-2.31</td>
<td>38.2</td>
<td>4.40%$^c$</td>
<td>5.17</td>
<td>70.0</td>
</tr>
<tr>
<td>(-10, +10)</td>
<td>-0.57%$^a$</td>
<td>-2.01</td>
<td>55.8</td>
<td>5.06%$^c$</td>
<td>7.98</td>
<td>60.0</td>
</tr>
<tr>
<td>(-1, +1)</td>
<td>-0.14%$^a$</td>
<td>-0.33</td>
<td>44.1</td>
<td>3.98%$^c$</td>
<td>5.61</td>
<td>80.0</td>
</tr>
<tr>
<td>(-30, +30)</td>
<td>-2.96%$^c$</td>
<td>-10.55</td>
<td>54.5</td>
<td>6.78%$^c$</td>
<td>10.87</td>
<td>70.0</td>
</tr>
<tr>
<td>(-1,0)</td>
<td>-0.34%$^a$</td>
<td>-1.25</td>
<td>44.1</td>
<td>2.91%$^c$</td>
<td>2.94</td>
<td>50.0</td>
</tr>
<tr>
<td>(-60, 0)</td>
<td>-3.13%$^c$</td>
<td>-14.50</td>
<td>38.2</td>
<td>4.58%$^c$</td>
<td>7.31</td>
<td>60.0</td>
</tr>
<tr>
<td>(0, +60)</td>
<td>0.81%$^c$</td>
<td>2.86</td>
<td>44.1</td>
<td>1.95%$^b$</td>
<td>2.40</td>
<td>50.0</td>
</tr>
<tr>
<td>(-60, +60)</td>
<td>-2.60%$^c$</td>
<td>-12.50</td>
<td>50.0</td>
<td>4.13%$^c$</td>
<td>6.90</td>
<td>60.0</td>
</tr>
</tbody>
</table>

**Notes:** Z-test significance at the 10%, 5%, and 1% levels are denoted by $^a$, $^b$, and $^c$, respectively. The table shows the results of the event study for 34 mergers in the Italian banking market between Italian banks within the period 1994-2006. The number of bidder companies is 34 and the number of Targets is 10.

The analysis of the combined values shown in Table 3 confirms the trend of negative abnormal values. With the exception of the window including the 20 days around the announcement date in which the values are close to zero and not statistically significant, in all the other intervals, the mergers were destructive of value in line with the results produced from literature. The highest and statistically significant loss was recorded in the 10 days following the date of the announcement (-3.01%).

Table 3

<table>
<thead>
<tr>
<th>Time</th>
<th>CCAARs$_b$</th>
<th>Z-test</th>
<th>%Pos</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-60, +60)</td>
<td>-1.10%</td>
<td>-1.45</td>
<td>0.0</td>
</tr>
<tr>
<td>(0)</td>
<td>-1.41%$^a$</td>
<td>-1.87</td>
<td>0.0</td>
</tr>
<tr>
<td>(0, +10)</td>
<td>-3.01%$^c$</td>
<td>-3.98</td>
<td>0.0</td>
</tr>
<tr>
<td>(-10, +10)</td>
<td>0.63%</td>
<td>0.24</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Notes:** Z-test significance at the 10%, 5%, and 1% levels are denoted by $^a$, $^b$, and $^c$, respectively. The table shows the results of the event study for 34 mergers in the Italian banking market between Italian banks within the period 1994-2006. The number of bidder companies is 34 and the number of Targets is 10.

From the results shown in Table 4, it is easy to notice that unlike the sample made up only of bank mergers, the sample which includes all mergers registered positive and statistically significant cumulative average abnormal returns throughout the period observed for both the bidders and the targets.
The analysis of the combined values shown in Table 5 confirms the trend towards creating value for the non-banking sample. Within the 20 days around the announcement date, in fact, there was a statistically significant creation of value equal to 3.05%.

Table 4
Cumulative Average Abnormal Returns Standardized (CAARs) of Bidders and Targets for Non-banking Mergers (1994-2006)

<table>
<thead>
<tr>
<th>Time</th>
<th>CAARs BNB</th>
<th>Z-test</th>
<th>%Pos</th>
<th>CAARs TNB</th>
<th>Z-test</th>
<th>%Pos</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-5, +5)</td>
<td>1.65%*</td>
<td>2.00</td>
<td>53.85</td>
<td>4.70%*</td>
<td>5.44</td>
<td>62.68</td>
</tr>
<tr>
<td>(-10, +10)</td>
<td>2.49%*</td>
<td>5.28</td>
<td>66.66</td>
<td>5.55%*</td>
<td>8.69</td>
<td>64.18</td>
</tr>
<tr>
<td>(-1, 0)</td>
<td>2.22%*</td>
<td>7.95</td>
<td>53.85</td>
<td>2.48%*</td>
<td>19.06</td>
<td>61.19</td>
</tr>
</tbody>
</table>

Notes. Z-test significance at the 10%, 5%, and 1% levels are denoted by *, †, and ‡, respectively. The table shows the results of the event study for 70 mergers in the Italian Stock Market within the period 1994-2006. The number of bidder companies is 39 and the number of targets is 67.

Table 5
Combined Cumulative Average Abnormal Returns Standardized (CCAARs) for Non-banking Mergers (1994-2006)

<table>
<thead>
<tr>
<th>Time</th>
<th>CCAARs BNB</th>
<th>Z-test</th>
<th>%Pos</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-10, +10)</td>
<td>3.05%*</td>
<td>7.65</td>
<td>53.84</td>
</tr>
<tr>
<td>(-10, 0)</td>
<td>2.58%*</td>
<td>6.07</td>
<td>53.84</td>
</tr>
</tbody>
</table>

Notes. Z-test significance at the 10%, 5%, and 1% levels are denoted by *, †, and ‡, respectively. The table shows the results of the event study for 28 mergers in the Italian stock market within the period 1994-2006.

In the short term, the results are different depending on the sample examined. For the banking sector, the values obtained are in line with Becher (2000), Ferretti (2000), DeLong (2001), Houston, James, and Ryngaert (2001), Intrisano and Rossi (2012).

Instead, with regard to the total sample, the results show a significant value creation for the shareholders of both the bidder and target companies, also confirmed by the combined analysis. These results are in line with the work of Asquith (1983), Eckbo (1983), Malatesta (1983), Asquith, Bruner, and Mullins (1983), Loderer and Martin (1990), N. Kohers and T. Kohers (2000), Martynova and Renneboog (2006), who found positive abnormal returns for both companies. The results of the combined analysis, instead, are in line with Malatesta (1983), Franks, Harris, and Titman (1991), Servaes (1991), Healy, Palepu, and Ruback (1992), who found positive and statistically significant combined values.

Long-term Performance

The long-term results appear to conflict with short-term results in relation to the total sample examined. In Table 6, in fact, negative results emerge for both portfolios examined. In the 36 months following the merger, the portfolios showed a significant destruction of value (BHAARsB -1.72% -24.64% BHAARsNB). In particular, the highest and most significant losses were registered in the two years following the merger in the banking sector (BHAARsB -4.61%). The results found in this work are contrary to those of Gupta and Misra (2007), who found positive and significant values (BHR +4.64%). In a single sub-period, the bidders’ stocks registered positive but not statistically significant values in the order of 1.35%. The portfolio of non-banking mergers, however, always registered negative and statistically significant abnormal returns and between the second and third year it registered the greatest losses (BHAARsNB -45.90%). For both samples there was a tendency to increase the losses.
in the two years following the merger with the difference that while the portfolio of bank mergers contained the losses after two years, the non-banking portfolio registered the greatest part of the loss between the second and third year.

Table 6

**Buy and Hold Average Abnormal Returns for Banking (BHAARs<sub>B</sub>) and Non-banking (BHAARs<sub>NB</sub>) Mergers (1994-2006)**

<table>
<thead>
<tr>
<th>Months</th>
<th>BHAARs&lt;sub&gt;B&lt;/sub&gt;</th>
<th>Z-test</th>
<th>%Pos</th>
<th>BHAARs&lt;sub&gt;NB&lt;/sub&gt;</th>
<th>t-test</th>
<th>%Pos</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-6</td>
<td>-0.32%&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-2.96</td>
<td>33.33</td>
<td>-2.04%&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-4.82</td>
<td>0.0</td>
</tr>
<tr>
<td>1-12</td>
<td>-1.91%&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-3.55</td>
<td>16.66</td>
<td>-4.78%&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-5.16</td>
<td>0.0</td>
</tr>
<tr>
<td>13-24</td>
<td>-4.61%&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-11.79</td>
<td>0.0</td>
<td>-23.24%&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-12.80</td>
<td>0.0</td>
</tr>
<tr>
<td>25-36</td>
<td>1.35%</td>
<td>1.71</td>
<td>66.66</td>
<td>-45.90%&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-51.40</td>
<td>0.0</td>
</tr>
<tr>
<td>1-36</td>
<td>-1.72%&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-2.13</td>
<td>27.77</td>
<td>-24.64%&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-6.00</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Notes. t-test significance at the 10%, 5%, and 1% levels are denoted by a, b, and c, respectively. The number of bidders is 21 for the banking sector and 19 for the non-banking sector. The test of significance is calculated using the Barber and Lyon (1997) procedure.

The total returns of portfolio shown in Table 7 confirm the results previously found. The highest and most statistically significant losses were recorded in the three years following the merger. In the following 36 months, the BHAARs<sub>TS</sub> amounted to -11.78%. This confirms the trend to increase the losses between the first and third year with the prevalence between the second and third year (BHAARs -19.90%).

Table 7

**Buy and Hold Average Abnormal Returns (BHAARs<sub>TS</sub>) for Total Sample of Mergers (1994-2006)**

<table>
<thead>
<tr>
<th>Months</th>
<th>BHAARs&lt;sub&gt;TS&lt;/sub&gt;</th>
<th>t-test</th>
<th>%Pos</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-6</td>
<td>-1.14%&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-6.73</td>
<td>0.0</td>
</tr>
<tr>
<td>1-12</td>
<td>-3.08%&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-6.76</td>
<td>0.0</td>
</tr>
<tr>
<td>13-24</td>
<td>-12.35%&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-21.40</td>
<td>0.0</td>
</tr>
<tr>
<td>25-36</td>
<td>-19.90%&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-99.98</td>
<td>0.0</td>
</tr>
<tr>
<td>1-36</td>
<td>-11.78%&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-9.69</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Notes. t-test significance at the 10%, 5%, and 1% levels are denoted by a, b, and c, respectively. The number of bidder firms is 40. The test of significance is calculated using the Barber and Lyon (1997) procedure.

Figure 1. The trend of Buy and Hold Average Abnormal Return (BHAAR<sub>T</sub>). T = 1, 2, 3, …, 36 months for three portfolios; Banking (B); Non-Banking (NB); Total Sample (TS).
In no sub-period is there a sign reversal in the values. The Figure 1 shows the trend for BHAARs following 36 months.

Right from the start, the market perceives the merger as not generating value and maintains a negative reaction for the following 36 months. Apart from the portfolio of bank bidders which seems to show a zero trend with a substantial rise between the 31 and 36 month, the other portfolio assumes a persistent and consistent negative trend throughout the entire period. The total portfolio instead assumes an intermediate trend while showing a negative persistence.

Conclusions

A sample of 120 merger announcements was the subject of study in this work during the period 1994-2006 in the short and long term. In particular, two equally weighted portfolios composed of stocks of banking and non-banking bidders were formed. In the short term, the sample made up of banking stocks registered a significant loss for the bidder companies and positive and significant abnormal returns for the target companies. The portfolio consisting of non-banking securities, on the contrary, registered positive and statistically significant abnormal values for both the bidder and target companies.

The long-term analysis, however, showed that mergers do not create value, and that the portfolio of non-banking mergers tends to register greater significant losses than banking mergers. The trend is seen particularly between the second and third year where the abnormal returns are higher and more statistically significant in all periods examined. The banking portfolio shows a tendency to recover the returns between the second and third year, ending the period with a loss of -1.72%. Unlike the banking portfolio, the non-banking portfolio shows a tendency to increase the losses significantly between the second and third year, closing the observation period with a statistically significant loss (BHAARS_NB -24.64%).

The examination of the total portfolio composed of two sub-portfolios confirms a significant loss of value in the 36 months following the merger (BHAARS_TS -11.78%).

In Italy, mergers are not “good news” and the results obtained both in the short and long-term analysis is in line with literature. With regard to the long term, as in the work of Agrawal, Jaffe, and Mandelker (1992), Loughran and Vrij (1997), Rau and Vermaelen (1998), Jaffe and Agrawal (2000), Park and Ferris (2002), N. Kohers and T. Kohers (2000), Black, Carnes, and Jandik (2001), Ferris and Park (2002), Sudarsanam and Mahate (2003, 2006), in this one also negative results are confirmed, and in particular that mergers do not appear to generate value for shareholders. The results obtained in this study confirm those found by Intrisano and Rossi (2012) for the short term in the banking sector.

Most of the works examined showed negative abnormal returns before and after the merger regardless of the methodology and the statistical techniques used. In this regard, a number of possible hypotheses can be formulated:

- The market is inefficient and therefore the abnormal returns represent the “price of inefficiency”. This explanation, however, remains weak, as Malatesta (1983) and Agrawal and Jaffe (2000) have noted;
- The synergies are overestimated (and overpaid) compared with their full extent and therefore there is the phenomenon of “Hubris Hypothesis” (Roll, 1986);
The estimation models are inadequate to investigate this phenomenon and this explains the presence of abnormal returns. In this case, as Rau and Vermaelen (1998) pointed out, “Such tests should be used with caution” (p. 252).

The fact remains that further investigations are needed to provide more solid explanations for the continual presence of this anomaly that exists regardless of (1) the country; (2) the sector of the economy; (3) the size of the samples examined; and (4) the time horizon observed.

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Enhancing Access to Bank Credit for Small-Scale Farmers in Kisumu and Kiambu Districts, Kenya Through Public-Private Partnership Initiative

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In Kenya, small-scale farming has immense potential in poverty reduction. The growth of farming activities requires sustainable access to affordable credit to boost and sustain production. This study is initiated to investigate factors influencing access to bank credit by small-scale farmers in Kisumu and Kiambu Districts, Kenya. It is necessitated by lack of a comprehensive study documenting the effectiveness of the partnership initiative in improving access to credit for small-scale farmers. The study seeks to address the following concerns: what factors influence access to bank credit by small-scale farmers under the initiative? Are small-scale farmers in various parts of the country accessing bank credit equally? Through which sources do farmers get to know about credit products provided through the initiative? Primary data was collected from 144 farmers in Kiambu and 127 farmers in Kisumu, sampled using systematic random procedure. The cross-sectional survey design was applied to guide the research process. Quantitative analysis generated cross-tabulations with chi-square and binary logistic regression. The study found that out of 144 credit applicants in Kiambu about 56.3% were successful, while in Kisumu only 37.8% were successful. Access to bank credit was significantly associated with farmers’ gender, education level, income level, farm size, and farming experience. Besides, women were 1.3 times less likely to access bank credit than men. In terms of regional variation, a Kiambu farmer was 2.7 times more likely to obtain bank credit than a Kisumu farmer. The initiative is an innovative approach for enhancing access to bank credit; however, its potential has not been fully exploited. The study recommends the need: to inform farmers about credit products to clear misconceptions and myths associated with bank credit; develop innovative financing packages for small-scale farmers that are also gender-sensitive; and to initiate a training program targeting farmers with appropriate information.

Keywords: access to bank credit, small-scale farming, public-private partnership, commercial banks, government, credit request

Introduction

The Kenyan economy is largely founded on agriculture, contributing up to 25 percent of the national Gross Domestic Product (GDP) and provides employment opportunities to over 75 percent of the national workforce.
ENHANCING ACCESS TO BANK CREDIT FOR SMALL-SCALE FARMERS

Small-scale farming accounts for 75 percent of the total agricultural output and about 70 percent of marketed agricultural produce (Kibaara, 2006; Government of Kenya, 2010). The Agricultural Sector Development Strategy (ASDS) in 2010-2011 defined small-scale farmers as those undertaking their production in farms averaging 0.2 to 3 hectares, mainly for commercial purposes. Based on this, small-scale farmers produce over 70 percent of maize, 65 percent of coffee, 50 percent of tea, 80 percent of milk, 85 percent of fish, and 70 percent of beef and related products (Government of Kenya, 2010).

Various empirical studies, including Stamoulis (2007) and World Bank (2008) noted that the growth of small-scale agricultural sub-sector was the primary source of poverty reduction, particularly in developing economies. In this regard, the expansion of small-scale farming has a great potential to reduce poverty by increasing incomes of farmers and reducing expenditure on food (Stamoulis, 2007; World Bank, 2008). According to Ravallion (2001) an increase in household income by 2 percent translates to a fall in poverty level by about 4 percent on average. Besides, the GDP growth originating from agricultural sector is about four times more effective in reducing poverty than GDP growth of other sectors (World Bank, 2008). Thus, the growth of small-scale farming has immense potential in alleviating poverty and reducing hunger in line with the Millennium Development Goal (MDG) number one.

Access to Bank Credit and the Growth of Small-Scale Farming

The growth of small-scale farming requires sustainable access to affordable credit facilities to boost and sustain production. Although all business ventures, including farming require capital to grow and realize their potential, small-scale farming in Kenya has not received adequate support from the banking sector, as regards access to credit facilities (Kibaara, 2006). Similarly, Odhiambo (2007) noted that Kenyan commercial banks had shied away from providing credit to small-scale farmers due to the high risk of agricultural activities, resulting from erratic weather conditions. At the continental level, a study conducted by FAO noted that Africa agriculture accounts for only 2 percent of the commercial credit, a situation that undermined agricultural sector’s contribution to poverty eradication in the continent’s fragile economies (FAO, 2004). Small-scale farmers are by-passed by credit facilities provided by commercial banks for lack of collateral and credit history (Pearce, 2004).

A World Bank study also confirms that commercial banks have not been responsive to the financing needs of agricultural ventures due to inherent risks. As a result, the share of credit provided to the sector by commercial banks has been lower compared with the proportion that goes to manufacturing, trade and other service sectors. This continues to impede expansion and technology adoption (World Bank, 2008). Most small-scale farmers have been coping by depending on savings from low incomes, while some farmers rely on credits provided by their friends, relatives, and informal money lenders. Limited access to formal credit facilities limit the ability of small-scale farmers to realize their potential (Pearce, 2004; Kibaara, 2005).

Government’s Effort to Enhance Access to Formal Credit for Small-Scale Farmers

The need to improve access to formal credit facilities for small-scale farmers dates back to 1963, when the Agricultural Finance Corporation (AFC) was established as subsidiary of the Land and Agricultural Bank. The institution was later incorporated as a fully-fledged financial institution in 1969 through the Agricultural Finance Corporation Act, Cap 323, laws of Kenya in 1969 (Mwangi, 2008). Its primary mandate was to assist the development of agricultural sector by providing credit products designed to meet the needs of farmers, as well as
providing technical support to beneficiaries of its credit facilities (AFC, 2008). Although AFC has been instrumental in meeting the financing needs of small-scale farmers over the years, poor governance led to about one-third (27%) of its credit portfolio being non-performing (AFC, 2008). Its optimal performance is also undermined by low interest rates compared, which has seen the Corporation lose up to KES 1.4 billion in a span of five years due to subsidised interest rates. Worse still, the corporation is highly undercapitalized, operating at a credit portfolio of KES 3.8 billion, instead of the recommended KES 10 billion (AFC, 2008). This necessitates alternative ways through which the government can reach small-scale farmers in a more cost-effective way (Mwangi, 2008).

The need to improve access to formal credit for small-scale farmers is also recognized in national policy documents, including the Economic Recovery Strategy for Wealth and Employment Creation (ERSWEC) in 2003-2007, which underscored the government’s concern about poor access to credit services as a key factor undermining agricultural productivity. Access to credit by small-scale farmers is also resonated in the sectoral policy document—the Strategy for Revitalizing Agriculture (SRA) and ASDS. The policy documents articulate a series of corrective interventions, including enacting appropriate legislation to encourage microfinance institutions to come up with appropriate lending policies for small-scale farmers; creating conducive business environment to make farming more rewarding; incentivizing commercial banks to increase lending to the agricultural sector; and recapitalizing and streamlining the management of AFC to fulfill its mandate (Government of Kenya, 2004, 2010; Kibaara, 2006). In July 2003, African Heads of States congregated in Maputo, Mozambique during the Second Ordinary Session to discuss important development issues bedeviling the continent (African Union, 2003). The meeting came up with various declarations among them, the need to increase budgetary allocation to the agricultural sector to at least 10 percent of the national budgets, as well as initiate mechanisms for enhancing access to credit by small-scale farmers by the end of 2008 (African Union, 2003; New Partnership for African Development, 2009).

The partnership initiative with selected commercial banks is an idea that was inspired by aforethought policy recommendations, spanning over several years. The partnership initiative, which involved two commercial banks—Equity Bank (Equity) and the Cooperative Bank of Kenya (Coop), which have been financed by the GoK and development partners such as Alliance for a Green Revolution in Africa (AGRA) and the International Fund for Agricultural Development (IFAD), among others (World Bank, 2008; ASARECA, 2010). The two commercial banks were identified as financial intermediaries, channeling funds to reach more than 2.5 million small-scale farmers and about 15,000 agricultural value chain members such as rural input shops, fertilizers and seed wholesalers and importers, grain traders, and food processors (ASARECA, 2010).

Effectiveness of the Partnership Initiative With Commercial Banks

The partnership initiative was formalized through a memorandum of understanding (MoU), which created a leeway for the intermediary banks to set up and modify, as appropriate, credit management policies (ASARECA, 2010). Although no comprehensive study has ever assessed the effectiveness of the partnership initiative in addressing financing needs of small-scale farmers, a few anecdotal literature highlight that access to credit under the initiative is pegged on farmers availing suitable collateral, which most of them cannot afford, providing information about their credit record, which locks out most farmers (Odhiambo, 2007; ASARECA, 2010).
Additional concerns emerging in anecdotal literature include the tendency of commercial banks not to adhere to the terms spelt out in the MoU. In this regard, the banks are accused of prioritizing lending out their own funds, which to them, is more profitable (Kandinate, 2007) and altering interest rates for funds advanced through the partnership initiative. For instance, interest rate for the Kilimo Biashara was set at 1 percent per month; however, this was raised to 15 percent, which was prohibitive to small-scale farmers (ASARECA, 2010).

Another concern is the lag between request and approval for credit, which has serious implications for the utilisation of credit for agricultural purposes, where timely investment is critical for success (Kibaara, 2006; ASARECA, 2010). In addition, there is limited awareness on the part of farmers about the initiative and related credit products provided by the commercial banks, a situation, which the policy brief by ASARECA (2010) attributes to inadequate dissemination of information about the partnership initiative and its benefits to small-scale farmers. Kandinate (2007) also affirmed that most small-scale farmers were not aware of available agricultural credit facilities, while some farmers had phobic about bank credit, others believed that banks provide credit to people with huge account balances.

**Statement of the Problem**

The role of small-scale farming in the realization of the first MDG on poverty alleviation and hunger reduction by 2015 is well-documented (Ravallion, 2001; Government of Kenya, 2003, 2004, 2010; Kibaara, 2005; Stamoulis, 2007; World Bank, 2008). Nonetheless, small-scale farming requires sustainable access to affordable credit to boost and sustain production (Pearce, 2004; ASARECA, 2010; Odhiambo, 2007; Kandinate, 2007). Although commercial banks play a key role in supporting economic development in various sectors, most of them have shied away from financing small-scale farmers due to prohibitive collateral requirement, lack of credit record, high interest rates, and high risks associated with farming vis-à-vis climatic patterns (FAO, 2004; Pearce, 2004; Kibaara, 2006; Odhiambo, 2007; World Bank, 2008). To cope with the situation, small-scale farmers depend on their savings and informal credits provided by friends, relatives and money lenders, as well as self-help groups and farmers’ cooperatives, but which barely suffice their financing needs (Pearce, 2004; Odhiambo, 2007; Kandinate, 2007). The partnership initiative between GoK and selected commercial banks is among various interventions aimed at improving access to formal credits for at least 2.5 million small-scale farmers. Although no comprehensive study has been undertaken to assess the extent to which small-scale farmers are accessing bank credit under the partnership initiative, a few anecdotal literature hint that access to bank credit has not improved for most farmers as earlier envisage. Farmers are still required to raise collateral and provide credit track record.

Furthermore, commercial banks prefer to lend out their own funds, which attract higher interest rates, they have also failed to adhere to provisions of the MoU formalizing the partnership initiative, particularly as regards interest rates (Kibaara, 2006; Odhiambo, 2007). Other concerns emerging in the literature include the long duration between the time requests are made and the time credit is disbursed, which affects the timing of investments, because most small-scale farmers rely on rain-fed agriculture (Kibaara, 2006; ASARECA, 2010). Also raising concern is the limited awareness about credit services provided by banks involved in the partnership initiative due to inadequate dissemination of information about the initiative (ASARECA, 2010). Against this background of challenges, the study seeks to address the following concerns: what factors influence the access to
bank credit by small-scale farmers under the partnership initiative? Are small-scale farmers in various parts of the country accessing bank credit equally? Through which sources do farmers get to know about credit products provided by banks involved in the initiative? The need to address these concerns prompted the conduct of this study. Kiambu and Kisumu Districts were particularly selected because of their distinct variation in development indicators, particularly incomes per capita and longevity (United Nations Development Programme and Government of Kenya, 2008).

**Objectives of the Study**

The broad objective of the study was to assess factors influencing access to bank credit by small-scale farmers under the partnership initiative. Specifically, the study addressed the following objectives:

1. Assess the relationships between farmers’ profile and access to bank credit;
2. Establish the sources of information about credit services provided by the partnership initiative;
3. Determine the factors influencing access to bank credit among small-scale farmers;
4. Assess regional variation in access to bank credit by small-scale farmers.

**Hypotheses of the Study**

The study determined the statistical significance of the following null hypotheses:

- $H_01$: The success of credit request is not significantly related to gender.
- $H_02$: The success of credit request is not significantly associated with age of farmers.
- $H_03$: The success of credit request and marital status are not significantly related.
- $H_04$: There is no significant relationship between the success of credit request and family size.
- $H_05$: Credit request success and education level are not significantly related.
- $H_06$: There is no significant link between the success of credit request and religion.
- $H_07$: The success of credit request is not significantly associated with usual place of residence.
- $H_08$: Credit request success and income level are not significantly related.
- $H_09$: There is no significant association between the success of credit request and land tenure.
- $H_010$: The relationship between the success of credit request and land size is not significant.
- $H_011$: There is no significant link between the success of credit requests and farming experience.
- $H_012$: The success of credit request and type of farming are not significantly associated.
- $H_013$: The success of credit request and number of previous requests are not significantly related.

**Research Design**

The study applied cross-sectional survey designs with both quantitative and qualitative approaches. Whereas the information sourced through quantitative approach was used for descriptive and inferential purposes, the qualitative approach obtained in-depth information based on experiences and opinions of bank staff members. Cross-sectional surveys cross-analyze baseline information of participants, including demographic, social and economic attributes, as well as perceptions and attitudes (American Statistical Association, 1999). As noted by Rindfleisch, Malter, Ganesan & Moorman (2008) cross-sectional survey designs are cheaper than longitudinal designs and are less vulnerable to intervening factors such as social, political or cultural changes that may occur during the life of a project, which may affect the validity of information sourced.
**Research Method**

Primary data were collected from small-scale farmers in Kiambu and Kisumu Districts between May and July 2009. They included farmers who had applied for bank credit within a period of six months, that is, between September 2008 and March 2009. The farmers were identified through credit request records provided by the banks. Using the records, systematic random sampling was performed to give every farmer an equal opportunity for selection. The sampling process yielded a total of 178 farmers in Kiambu and 152 farmers in Kisumu District. However, by the end of July 2009, only 144 and 127 interviews were successful in Kiambu and Kisumu Districts, respectively. This gives a response rate of 80.9 percent and 83.6 percent in Kiambu and Kisumu, respectively. Selected farmers were traced to their homes from where they were interviewed using a semi-structured questionnaire. Primary data were also obtained from six staff members of the banks, who were selected purposively based on their direct involvement in credit services to small-scale farmers. The interviews were guided by a key informant interview schedule, which sourced qualitative data.

Both quantitative and qualitative analysis techniques were used in the study. While quantitative analysis generated cross-tabulations with chi-square and binary logistic regression, the qualitative component elicited qualitative information based on the opinions and experiences of bank staff, who were interviewed as key informants. Binary logistic regression is often used to predict the proportion of variation in a dichotomous variable from a set of independent and confounding variables (Aldrich & Nelson, 1984). When applying the model, the predicted variable takes the value 1 with a probability of success $\theta$, or the value 0 with probability of failure $1-\theta$. In this study, the dependent variable was success of credit request (CREDRsucc), with only two possible values—successful or unsuccessful. The model is often expressed as indicated below (Aldrich & Nelson, 1984):

$$\text{Logit} \left[ \theta(Y) \right] = \log \left( \frac{\theta(Y)}{1-\theta(Y)} \right) = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \ldots + \beta_i X_i + \varepsilon$$

Where: $Y$ = the predicted variable (CREDRsucc); $\theta(Y)$ = the probability that the credit request was successful; $1-\theta(Y)$ = the probability that credit request was unsuccessful; $\alpha$ = the constant term of the equation; $\beta_1, \beta_2, \ldots, \beta_i$ = the regression co-efficients associated with independent variables; $X_1, X_2, \ldots, X_i$ = independent variables; and $\varepsilon$ = the error term. Although the model has several output parameters, this study was interested in the $\text{Exp}(\beta)$ or odds ratios. The Statistical Package for Social Sciences (SPSS) and Microsoft Excel packages were used to facilitate quantitative analyses.

Figure 1 shows the conceptual framework used in the study. The conceptual framework presented shows that access to bank credit under the partnership initiative is a function of a set of factors, which can conceptually be categorized as socio-economic, farming attributes, and demographic factors.

However, the magnitude and direction of effect between the independent variables and the dependent variables is likely to be confounded by a set of intervening variables such as district of residence, banking institution and number of times one has applied for credit, among others. Table 1 provides the operational definition of the variables outlined in the conceptual framework.
Table 1

**Operational Definition of Variables Used in the Equation**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Full name</th>
<th>Value labels</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENDrespo</td>
<td>Respondent’s gender</td>
<td>1—men</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2—women</td>
</tr>
<tr>
<td>AGRespo</td>
<td>Age of respondents</td>
<td>1—20-29 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2—30-39 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3—40-49 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4—50-59 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5—60 years+</td>
</tr>
<tr>
<td>EDUlevel</td>
<td>Highest education level</td>
<td>1—no education</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2—primary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3—secondary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4—college</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5—university</td>
</tr>
<tr>
<td>INCOMlevel</td>
<td>Average monthly income</td>
<td>1—KES 20,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2—KES 20,000-39,999</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3—KES 40,000-59,999</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4—KES 60,000-79,999</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5—KES 80,000-99,999</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6—KES 100,000-149,999</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7—KES 150,000+</td>
</tr>
<tr>
<td>LANDtenure</td>
<td>Land ownership type</td>
<td>1—owns land singly</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2—owns land jointly with family</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3—owns land jointly with non-family</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4—rented land</td>
</tr>
<tr>
<td>LANDsize</td>
<td>Size of land</td>
<td>1—less than 1 ha</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2—1.0 to 1.4 ha</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3—1.5 to 1.9 ha</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4—2.0 to 2.4 ha</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5—2.5 to 2.9 ha</td>
</tr>
<tr>
<td>EXPyears</td>
<td>Farming experience</td>
<td>1—less than 5 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2—5-9 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3—10-14 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4—15 years+</td>
</tr>
</tbody>
</table>
Qualitative data were processed and analyzed following three steps. In the first step, data were organized and summarized in line with key thematic areas. The second step involved description of the summary sheets to produce a preliminary report. The third step involved systematic analysis and interpretation of the preliminary report, which was then integrated with quantitative data in the final report (Best & Khan, 2004).

**Study Findings**

This section presents findings of the study, which have been organized under four thematic headings, including background profile of farmers, information sources on bank credit, factors influencing access to bank credit, and model’s goodness-of-fit. Details have been discussed in the following sub-sections.

**Background Profile of Farmers and Access to Bank Credit**

The study covered a total of 271 small-scale farmers who had applied for bank credit between September 2008 and March 2009, of which 144(53.1%) were residents of Kiambu and 127(46.9%) resided in Kisumu District. Of the 271 respondents, only 129(47.6%) credit applicants were successful; the rest, 142(52.4%) were unsuccessful. In Kiambu, 56.3 percent of the 144 applicants were successful, while in Kisumu, only 37.8 percent were successful. Bivariate analysis obtained a calculated $\chi^2$ of 8.489 (corrected for continuity), with 1 degree of freedom and a $p$-value of 0.004. The result is significant at 0.01 error margin, implying up to 99 percent chances that the two districts were significantly different in terms of the success of bank credit request.

**Demographic Profile**

Table 2 shows that out of 129 successful credit applicants, up to 86.8 percent were men. The analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Full name</th>
<th>Value labels</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARITstatus</td>
<td>Respondent’s marital status</td>
<td>1—single  2—married  3—divorced/separated  4—widowed</td>
</tr>
<tr>
<td>FAMILYsize</td>
<td>Number of children owned by respondent</td>
<td>1—no children  2—1-4 children  3—5-9 children  4—10 children+</td>
</tr>
<tr>
<td>RELIGrespo</td>
<td>Religion of the respondent</td>
<td>1—protestant  2—catholic  3—muslim  4—others  5—no religion</td>
</tr>
<tr>
<td>DISTres</td>
<td>District of residence</td>
<td>1—kiambu  2—kisumu</td>
</tr>
<tr>
<td>INFORsource</td>
<td>Most important source of information on bank credit</td>
<td>1—bank  2—ASK show  3—friends  4—family  5—public forums</td>
</tr>
<tr>
<td>BANinst</td>
<td>Banking institution</td>
<td>1—equity bank  2—coorporative bank</td>
</tr>
<tr>
<td>NUMapplied</td>
<td>Number of times applied for credit</td>
<td>1—ones  2—twice  3—thrice  4—more than thrice</td>
</tr>
<tr>
<td>CREDRsucc</td>
<td>Success of credit request</td>
<td>1—successful  2—unsuccessful</td>
</tr>
</tbody>
</table>
obtained a calculated $\chi^2$ of 18.024 (corrected for continuity), with 1 degree of freedom and a $p$-value of 0.000, which is significant at 0.01 error margin. This implies up to 99 percent chances that the success of credit request was significantly associated with genders, which negates the null hypothesis ($H_{01}$) stating that the success of credit request is not significantly related to gender. Consequently, $H_{01}$ was rejected for being inconsistent with empirical findings.

Table 2

Demographic Profile and Access to Bank Credit

<table>
<thead>
<tr>
<th>Variables</th>
<th>Successful</th>
<th></th>
<th>Not successful</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>112</td>
<td>86.8</td>
<td>79</td>
<td>55.6</td>
</tr>
<tr>
<td>Women</td>
<td>17</td>
<td>13.2</td>
<td>63</td>
<td>44.4</td>
</tr>
<tr>
<td>Total</td>
<td>129</td>
<td>100.0</td>
<td>142</td>
<td>100.0</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-29 years</td>
<td>12</td>
<td>9.3</td>
<td>16</td>
<td>11.3</td>
</tr>
<tr>
<td>30-39 years</td>
<td>36</td>
<td>27.8</td>
<td>33</td>
<td>23.2</td>
</tr>
<tr>
<td>40-49 years</td>
<td>42</td>
<td>32.6</td>
<td>53</td>
<td>37.4</td>
</tr>
<tr>
<td>50-59 years</td>
<td>30</td>
<td>23.3</td>
<td>31</td>
<td>21.8</td>
</tr>
<tr>
<td>60 years +</td>
<td>9</td>
<td>7.0</td>
<td>9</td>
<td>6.3</td>
</tr>
<tr>
<td>Total</td>
<td>129</td>
<td>100.0</td>
<td>142</td>
<td>100.0</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>2</td>
<td>1.6</td>
<td>2</td>
<td>1.4</td>
</tr>
<tr>
<td>Married</td>
<td>110</td>
<td>85.2</td>
<td>111</td>
<td>78.2</td>
</tr>
<tr>
<td>Divorced/separated</td>
<td>13</td>
<td>10.1</td>
<td>3</td>
<td>2.1</td>
</tr>
<tr>
<td>Widowed</td>
<td>4</td>
<td>3.1</td>
<td>26</td>
<td>18.3</td>
</tr>
<tr>
<td>Total</td>
<td>129</td>
<td>100.0</td>
<td>142</td>
<td>100.0</td>
</tr>
<tr>
<td>Family size</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No children</td>
<td>7</td>
<td>5.4</td>
<td>6</td>
<td>4.2</td>
</tr>
<tr>
<td>1-4 children</td>
<td>43</td>
<td>33.3</td>
<td>54</td>
<td>38.1</td>
</tr>
<tr>
<td>5-9 children</td>
<td>74</td>
<td>57.4</td>
<td>71</td>
<td>50.0</td>
</tr>
<tr>
<td>10 children +</td>
<td>5</td>
<td>3.9</td>
<td>11</td>
<td>7.7</td>
</tr>
<tr>
<td>Total</td>
<td>129</td>
<td>100.0</td>
<td>142</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note: Source: Survey Data, 2009.

As regarding age, about one-third (32.6%) of the successful credit applicants were in the 40-49 years age bracket, 27.9 percent were aged 30-39 years, while 23.3 percent were in the bracket of 50-59 years. The analysis further obtained a calculated $\chi^2$ of 1.371, with four degrees of freedom and a $p$-value of 0.849, which is not significant. This implies that the success of credit request has no significant link with applicants’ age, thus, the null hypothesis ($H_{02}$) stating that the success of credit request is not significantly associated with age of farmers was not rejected for lack of sufficient empirical evidence to warrant its rejection.

The results show that 85.3 percent of the 129 successful credit applicants were married at the time of the study, while 10.1 percent were divorced or separated. The analysis obtained calculated $\chi^2$ of 21.814, with three degrees of freedom and a $p$-value of 0.000, which is significant at 0.01 error margin, implying up to 99 percent chances that the success of credit application was significantly associated with applicants’ marital status. This
prompted rejection of the null hypothesis (H03) stating that the success of credit request and marital status are not significantly related. As for family size, out of 129 successful credit applicants, 57.4 percent had between five and 9 children, while about one third (33.3%) had one to four children. The analysis obtained a calculated $\chi^2$ of 3.020, with three degrees of freedom and a p-value of 0.389, which is not significant, thus, the null hypothesis (H04) stating that there is no significant relationship between the success of credit request and family size was rejected.

**Socio-Economic Profile**

The results presented in table 3 show that of the 129 successful credit applicants, 33.3 percent had attained university education, while 30.2 percent had college education. The analysis yielded a calculated $\chi^2$ of 32.413, with four degrees of freedom and a p-value of 0.000, which is significant at 0.01 error margin. This implies up to 99 percent chances that the success of credit request was significantly linked to applicants’ education level, prompting the rejection of the null hypothesis (H05) stating that the success of credit request and education level are not significantly related.

The main religious affiliations of the 129 successful credit applicants include Protestantism (47.3%) and Catholicism (34.1%). The analysis obtained a calculated $\chi^2$ of 2.512, with four degrees of freedom and a p-value of 0.643, which is not significant. This implies that the success of credit request was not significantly associated with applicants’ religious background, hence, the null hypothesis (H06) stating that there is no significant link between the success of credit request and religion was not rejected. In addition, majority (89.9%) of the 129 successful credit applicants, were rural dwellers. The analysis further obtained a calculated $\chi^2$ of 1.426, with one degree of freedom (corrected for continuity) and a p-value of 0.514. However, the result is not significant, an indication that the success of credit applications is not significantly linked to applicants’ usual place of residence. Again, the null hypothesis (H07) stating that the success of credit request is not significantly associated with usual place of residence was not rejected.

As regarding income level, the results in Table 3 show that out of 129 successful credit applicants, up to 27.9 percent were in the KES 60,000-79,000 income bracket, while 22.5 percent were earning between KES 40,000 and 59,999. The analysis further yielded a calculated $\chi^2$ of 14.912, with six degrees of freedom and a p-value of 0.001, which is significant at 0.01 error margin. This gives up to 99 percent chances that the success of credit requests was significantly tied to applicants’ income level. As a result, the null hypothesis (H08) stating that credit request success and income level are not significantly related was rejected. The study also found that up to 81.4 percent of the 129 successful credit applicants owned land singly, while 13.2 percent owned land jointly with family members. Bivariate analysis between the success of credit request and land tenure obtained a calculated $\chi^2$ of 6.929, with three degrees of freedom and a p-value of 0.051, which is significant at 0.1 error margin. This implies up to 90 percent chances that the success of credit request was significantly associated with the types of land tenure. The result prompted the rejection of the null hypothesis (H09), which stated that there was no significant association between the success of credit request and land tenure.
### Table 3
Socio-Economic Profile and Access to Bank Credit

<table>
<thead>
<tr>
<th>Variables</th>
<th>Successful Frequency</th>
<th>Successful Percent</th>
<th>Not successful Frequency</th>
<th>Not successful Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Education level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No education</td>
<td>2</td>
<td>1.6</td>
<td>4</td>
<td>2.8</td>
</tr>
<tr>
<td>Primary</td>
<td>10</td>
<td>7.8</td>
<td>37</td>
<td>26.1</td>
</tr>
<tr>
<td>Secondary</td>
<td>35</td>
<td>27.1</td>
<td>69</td>
<td>48.6</td>
</tr>
<tr>
<td>College</td>
<td>39</td>
<td>30.2</td>
<td>25</td>
<td>17.6</td>
</tr>
<tr>
<td>University</td>
<td>43</td>
<td>33.3</td>
<td>7</td>
<td>4.9</td>
</tr>
<tr>
<td>Total</td>
<td>129</td>
<td>100.0</td>
<td>142</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Religion</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protestant</td>
<td>61</td>
<td>47.3</td>
<td>74</td>
<td>52.1</td>
</tr>
<tr>
<td>Catholic</td>
<td>44</td>
<td>34.1</td>
<td>51</td>
<td>35.9</td>
</tr>
<tr>
<td>Muslim</td>
<td>5</td>
<td>3.9</td>
<td>3</td>
<td>2.1</td>
</tr>
<tr>
<td>Others</td>
<td>17</td>
<td>13.2</td>
<td>12</td>
<td>8.5</td>
</tr>
<tr>
<td>No religion</td>
<td>2</td>
<td>1.5</td>
<td>2</td>
<td>1.4</td>
</tr>
<tr>
<td>Total</td>
<td>129</td>
<td>100.0</td>
<td>142</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Usual place of residence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>116</td>
<td>89.9</td>
<td>123</td>
<td>86.6</td>
</tr>
<tr>
<td>Urban</td>
<td>13</td>
<td>10.1</td>
<td>19</td>
<td>13.4</td>
</tr>
<tr>
<td>Total</td>
<td>129</td>
<td>100.0</td>
<td>142</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Income level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;KES 20,000</td>
<td>8</td>
<td>6.2</td>
<td>20</td>
<td>14.1</td>
</tr>
<tr>
<td>KES 20,000-39,999</td>
<td>13</td>
<td>10.1</td>
<td>26</td>
<td>18.3</td>
</tr>
<tr>
<td>KES 40,000-59,000</td>
<td>29</td>
<td>22.5</td>
<td>32</td>
<td>22.5</td>
</tr>
<tr>
<td>KES 60,000-79,000</td>
<td>36</td>
<td>27.9</td>
<td>38</td>
<td>26.8</td>
</tr>
<tr>
<td>KES 80,000-99,999</td>
<td>24</td>
<td>18.6</td>
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<td>12.0</td>
</tr>
<tr>
<td>KES 100,000-149,000</td>
<td>16</td>
<td>12.4</td>
<td>6</td>
<td>4.2</td>
</tr>
<tr>
<td>KES 150,000+</td>
<td>3</td>
<td>2.3</td>
<td>3</td>
<td>2.1</td>
</tr>
<tr>
<td>Total</td>
<td>129</td>
<td>100.0</td>
<td>142</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Land ownership type</strong></td>
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<td></td>
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<tr>
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<td>80</td>
<td>56.3</td>
</tr>
<tr>
<td>Owns land jointly with family</td>
<td>17</td>
<td>13.2</td>
<td>41</td>
<td>28.9</td>
</tr>
<tr>
<td>Owns land jointly with non-family</td>
<td>6</td>
<td>4.6</td>
<td>15</td>
<td>10.6</td>
</tr>
<tr>
<td>Rented land</td>
<td>1</td>
<td>0.8</td>
<td>6</td>
<td>4.2</td>
</tr>
<tr>
<td>Total</td>
<td>129</td>
<td>100.0</td>
<td>142</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Note. Source: Survey data, 2009.*

Furthermore, Table 4 shows that out of the 129 successful credit applicants, up to 35.7 percent had between 2.5 and 2.9 hectares (ha) of land, while 32.6 percent had 2.0 to 2.4 ha. In total, about 68 percent of the successful credit applicants had at least 2 ha of land. The analysis obtained a calculated $\chi^2$ of 16.865, with four degrees of freedom and a $p$-value of 0.025, which is significant at 0.05 error margin, implying up to 95 percent chances that the success of credit request was significantly associated with the size of land owned by applicants. This necessitated the rejection of the null hypothesis ($H_0$), stating that the relationship between the success of credit request and land size is not significant.
The study also revealed that farmers had various levels of farming experience. In this regard, out of 129 successful credit applicants, up to 39.5 percent had 15 years or more of farming experience, while about one-third (29.5%) had 10 to 14 years experience. The analysis yielded a calculated $\chi^2$ of 22.038, with three degrees of freedom and a p-value of 0.002. The result is significant at 0.01 error margin, implying up to 99 percent chances that the success of credit request was significantly associated with applicants’ farming experience. Based on the result, the null hypothesis (H$_{011}$) stating that there is no significant link between the success of credit request and farming experience was rejected due to inconsistency with empirical findings.

Table 4 also shows that up to 60.5 percent of the successful credit applicants were crop farmers, while 24.8 percent specialized in livestock farming. Further analysis obtained a calculated $\chi^2$ of 2.752, with two degrees of freedom and a p-value of 0.687, which is not significant. This suggests that the success of credit requests is not significantly associated with farming types practiced by an individual. Thus, the null hypothesis (H$_{012}$) which stated that the success of credit request and type of farming are not significantly associated was not rejected. More still, up to 37.2 percent of the 129 successful credit applicants had applied for credit more than thrice, while 27.1 percent had done so three times. The analysis further yielded a calculated $\chi^2$ of 5.146, with three degrees of freedom and a p-value of 0.052, which is significant at 0.1 error margin. This gives up to 90 percent chances that the success of credit application is significantly associated with the number of previous credit requests made to
the intermediary banks. Hence, the null hypothesis (H₀₁₃) which stated that the success of credit request and the number of previous requests are not significantly related was rejected.

**Information Sources and Access to Bank Credit by Farmers**

Lack of information on credit products offered by commercial banks is highlighted in the literature as a key impediment to small-scale farmers in accessing bank credit facilities. In view of this, the study assessed the extent to which Kiambu and Kisumu farmers were accessing information through mass media, particularly radios, televisions (TV), and newspapers. Figure 2 shows that out of 271 farmers, 48.3 percent listened to radios, 38.0 percent watched TV, and 17.0 percent read newspapers on a daily basis. Descriptive statistics further show that radio is the most important form of mass media that was accessible to farmers, followed by TV and newspapers.

![Figure 2. Access to mass media by small-scale farmers.](image)

In terms of regions, daily radio listeners and TV watchers were more in Kiambu than in Kisumu, while daily newspaper readers were more in Kisumu than Kiambu. For radio listenership, bivariate analysis obtained a calculated $\chi^2$ of 6.923, with two degrees of freedom and a $p$-value of 0.031, which is significant at 0.05 error margin. This implies that small-scale farmers in Kiambu and Kisumu districts were significantly different in terms of radio listening behavior. For TV watching, the analysis yielded a calculated $\chi^2$ of 34.905, with two degrees of freedom and a $p$-value of 0.000, which is significant at 0.01 error margin. This finding suggests that farmers in the two districts were significantly different in terms of TV watching behavior, thus, were less likely to have equal access to information disseminated through TV. As for newspaper reading, the analysis obtained a calculated $\chi^2$ of 69.101, with two degrees of freedom and a $p$-value of 0.000. The result is significant at 0.01 error margin, implying up to 99 percent chances that farmers in the two districts were different in terms of newspaper reading. Overall, the results suggest that small-scale Kiambu farmers had greater access to mass media than Kisumu farmers, hence, were likely to be more informed about bank credit facilities.

In relation to credit access, Figure 3 shows that among farmers whose credit request were successful, 46.5 percent listened to radio daily, while 45.7 percent were occasional listeners. Besides, 40.3 percent of the farmers whose credit request were successful watched TV daily, while 19.4 percent were daily readers of newspapers. Based on the linkage between the frequency of radio listening and access to bank credit, the analysis obtained a calculated $\chi^2$ of 2.341, with two degrees of freedom and a $p$-value of 0.310, which is not significant. This shows lack of a significant difference between frequent radio listeners and non-listeners in terms of the success of credit...
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request. As for TV watching, the analysis obtained a calculated $\chi^2$ of 2.274, with two degrees of freedom and a $p$-value of 0.321, again, which is not significant. This suggests that frequent TV watchers were not significantly different from non-watchers in terms of the success of credit requests.

![Figure 3. Mass media and access to bank credit.](image)

The analysis for newspaper reading and credit access yielded a calculated $\chi^2$ of 5.351, with two degrees of freedom and a $p$-value of 0.069, which is significant at 0.1 error margin. This implies up to 90 percent chances that frequent newspaper readers and non-readers were significantly different in terms of the success of credit request. However, when asked to state the most common source of information about credit services offered by the intermediary banks, none of the respondents cited radio, TV or newspaper. In this regard, Figure 4 shows that out of 271 participants, 32.5 percent obtained information from Agricultural Society of Kenya (ASK) shows; 26.9 percent knew about the credit services through friends, while 19.6 percent learnt through the banks.

![Figure 4. Main sources of information about bank credit.](image)

Bivariate analysis obtained a calculated $\chi^2$ of 11.650, with five degrees of freedom and a $p$-value of 0.040, which is significant at 0.05 error margin. This suggests up to 95 percent chances that farmers in the two districts were significantly different in terms of the main source of information about credit facilities provided by the intermediary commercial banks. More specifically, in Kisumu, the most important sources of information included friends (35.4%), ASK shows (33.9%), and banks (14.2%), while in Kiambu, main information sources included ASK shows (31.9%), Banks (24.3%), and friends (19.4%). The analysis further assessed the nature of association between main sources of information and the success of credit request by the farmers. The results presented in Table 4 show that among the 129 successful participants, 29.5 percent received information from
ASK shows, 27.1 percent were informed by friends, while 23.3 percent knew about credit facilities through banks.

Table 5
Information Sources and Access to Bank Credit

<table>
<thead>
<tr>
<th>Sources of Information</th>
<th>Successful Frequency</th>
<th>Percent</th>
<th>Not successful Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank</td>
<td>30</td>
<td>23.3</td>
<td>23</td>
<td>16.2</td>
</tr>
<tr>
<td>ASK show</td>
<td>38</td>
<td>29.4</td>
<td>50</td>
<td>35.2</td>
</tr>
<tr>
<td>Friends</td>
<td>35</td>
<td>27.1</td>
<td>38</td>
<td>26.8</td>
</tr>
<tr>
<td>Family</td>
<td>5</td>
<td>3.9</td>
<td>11</td>
<td>7.7</td>
</tr>
<tr>
<td>Public forums</td>
<td>21</td>
<td>16.3</td>
<td>18</td>
<td>12.7</td>
</tr>
<tr>
<td>Others</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
<td>1.4</td>
</tr>
<tr>
<td>Total</td>
<td>129</td>
<td>100.0</td>
<td>142</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The analysis obtained a calculated $\chi^2$ of 6.556, with five degrees of freedom and a $p$-value of 0.256. This result is not significant, suggesting lack of a significant linkage between the main source of information about credit facilities provided by the intermediary commercial banks and the success of credit request. Although the participants indicated awareness of the credit facilities provided by the intermediary banks, the study found that this knowledge was in the possession of very few farmers. Most small-scale farmers lacked the information, thus, had not made any attempt to access bank credit provided under the partnership initiative.

Factors Influencing Access to Bank Credit Access by Farmers

Bivariate analysis revealed that the success of credit request significantly associated with various factors, including gender, marital status, education level, income level, type of land tenure, land size, farming experience and number of times one has applied for credit. These variables were entered into binary logistic regression models to determine their effects on the success of credit request by small-scale farmers. The results are summarized in Table 6.

Gender. In first model, credit requests by men were about 1.7 times more likely to succeed than credit requests by women. The variation between men and women is significant at 0.05 error margin. In the second model, where potential confounders were added to the equation, credit requests by men were about 1.3 times more likely to succeed than requests made by women. Again, the variation between the two groups is significant at 0.01 error margin, implying up to 99 percent chances that men had greater chances of accessing bank credit than women. The variation between men and women in accessing bank credit was stronger in Kisumu District than in Kiambu. More specifically, the results indicated that Kiambu women were about 4.3 times more likely to have successful credit request than Kisumu women. However, Kisumu men were about 0.5 times less likely to have successful credit applications than Kiambu men, the variation was not significant.

Education level. In model one, the results show that credit request by university graduates were about 2.1 times more likely to succeed than request made by farmers with no formal education. When the model is adjusted for confounders, university graduates became 1.4 times more likely to have their requests successful than applicants with no formal education. Variation between the two groups is significant at 0.01 error margin. Generally, the results show that the probability to have successful credit request varies directly as applicants’
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In terms of regions, the results indicated that Kiambu farmers holding university degrees were about 0.8 times more likely to have successful credit request than Kisumu farmers with the same education level. However, variation between the two groups was not significant. In addition, Kiambu farmers with no formal education were about 1.4 times more likely to have successful credit request than their Kisumu counterparts. The difference between the two groups is significant at 0.05 error margin, implying up to 95 percent chances that uneducated farmers in Kiambu had better access to bank credit than their counterparts in Kisumu.

Table 6
Summary Results of Binary Logistic Regression

<table>
<thead>
<tr>
<th>Covariates</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>S.E.</td>
</tr>
<tr>
<td>GENDrespo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>0.558</td>
<td>0.312</td>
</tr>
<tr>
<td>Women (RC)</td>
<td>xxxx</td>
<td>xxxx</td>
</tr>
<tr>
<td>EDUlevel</td>
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<td></td>
</tr>
<tr>
<td>University</td>
<td>0.716</td>
<td>0.558</td>
</tr>
<tr>
<td>College</td>
<td>0.301</td>
<td>0.538</td>
</tr>
<tr>
<td>Secondary</td>
<td>0.056</td>
<td>0.656</td>
</tr>
<tr>
<td>Primary</td>
<td>0.033</td>
<td>0.136</td>
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<tr>
<td>No Education (RC)</td>
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<td>xxxx</td>
</tr>
<tr>
<td>INCOMlevel</td>
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<td>KES 150,000+</td>
<td>0.993</td>
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</tr>
<tr>
<td>KES 100,000-149,999</td>
<td>0.720</td>
<td>0.125</td>
</tr>
<tr>
<td>KES 80,000-99,999</td>
<td>0.624</td>
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</tr>
<tr>
<td>KES 60,000-79,999</td>
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<td>KES 40,000-59,999</td>
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<td>Owns land jointly with family</td>
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<tr>
<td>Owns land jointly with non-family</td>
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<td>0.443</td>
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<tr>
<td>Rented land (RC)</td>
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<tr>
<td>LANDsize</td>
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<tr>
<td>2.5-2.9 ha</td>
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<td>0.417</td>
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<tr>
<td>2.0-2.4 ha</td>
<td>0.449</td>
<td>0.494</td>
</tr>
<tr>
<td>1.5-1.9 ha</td>
<td>0.285</td>
<td>0.455</td>
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<tr>
<td>1.0-1.4 ha</td>
<td>0.172</td>
<td>0.384</td>
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<tr>
<td>&lt; 1.0 ha (RC)</td>
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<td>EXPyears</td>
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<tr>
<td>15 years+</td>
<td>0.422</td>
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<td>10-14 years</td>
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<td>5-9 years</td>
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<td>&lt; 5 years (RC)</td>
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<td>Married</td>
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<td>Divorced/separated</td>
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<td>0.211</td>
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(Table 6 continued)

<table>
<thead>
<tr>
<th>Covariates</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
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<tr>
<td></td>
<td>β</td>
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<td>Widowed (RC)</td>
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<tr>
<td>Kiambu</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Kisumu (RC)</td>
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</tr>
<tr>
<td>INFORsource</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASK show</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Friends</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Family</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Public forums</td>
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<td>-</td>
</tr>
<tr>
<td>Bank (RC)</td>
<td>xxxx</td>
<td>xxxx</td>
</tr>
<tr>
<td>BANinst</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cooperative (RC)</td>
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<td>NUMapplied</td>
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<tr>
<td>More than thrice</td>
<td>-</td>
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<tr>
<td>Thrice</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Twice</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ones (RC)</td>
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<td>-</td>
</tr>
<tr>
<td>Constant</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Notes. RC = Reference category; * significant at \( p = 0.01 \); ** significant at \( p = 0.05 \); *** significant at \( p = 0.1 \). Source: Survey data, 2009.

**Income level.** Model one shows that farmers earning KES 150,000 or more were 2.7 times more likely to have successful credit request than farmers whose income was below KES 20,000 per month. When the model is adjusted for confounders, farmers in the top income scale became 2.3 times more likely to have their credit applications successful than those in the lowest income bracket. Variation between top and bottom earners is significant at 0.01 error margin. Table 6 further shows farmers in the income bracket of KES 100,000 to 149,999 were 2.1 times more likely to succeed in their applications than those earning less than KES 20,000. However, when confounders are included in the equation, the group became two times more likely to have their credit request successful than farmers in the bottom income scale. The results show that the higher the average income is, the greater the chances of farmers accessing bank credits are. The analysis indicated that Kiambu farmers in the top income group (KES 150,000+) were about 0.6 times more likely to have successful credit request than their counterparts in Kisumu. However, variation between the two groups is not significant. For the lowest income earners, Kisumu farmers earning below KES 20,000 were 0.9 times less likely to have their credit request successful than their counterparts in Kiambu. Again, the variation was not significant, implying that low income farmers in both regions are not significantly different in accessing bank credit.

**Land tenure.** In the first model, farmers owning land singly were 2.2 times more likely to have their applications successful than those farming on rented land. When confounders are included in the equation, the results show that farmers owning land singly were 1.9 times more likely to have their credit applications successful than farmers operating on rented land. The variation between farmers owning land singly and those practicing agriculture on rented land is significant at 0.05 error margin, implying up to 95 percent chances that
The type of land tenure significantly influences the success of bank credit request. The analysis also indicated that Kiambu farmers owning land singly were 1.6 times more likely to have successful credit request than their counterparts in Kisumu. Variation between the two groups is significant at 0.1 error margin, suggesting up to 90 percent chances that Kiambu farmers owning land singly had better chances to access bank credit than their Kisumu counterparts. Furthermore, Kiambu farmers operating on rented land were 0.3 times less likely to have their applications successful than similar farmers in Kisumu. However, variation between the two groups is not significant, implying that farmers operating on rented land had lower chances of accessing bank credit, irrespective of their residential districts.

**Land size.** As indicated in model one, farmers owning 2.5 to 2.9 ha of land were about 1.6 times more likely to have successful credit request than farmers owning less than 1 ha of land. When the model is adjusted for confounders, the results in model two show that farmers owning 2.5 to 2.9 ha of land were about 1.6 times more likely to have their applications successful than their colleagues owning less than 1 ha, representing marginal change in the chances. Variation between the largest and smallest land owners is significant at 0.01 error margin, thus, suggesting up to 99 percent chances than small-scale farmers with 2.5 to 2.9 ha of land stood a better chance to access bank credit than their counterparts owning less than 1 ha.

In addition, model one shows that farmers owning 1.0 to 1.4 ha were 1.5 times more likely to have their credit applications successful than farmers with less that 1 ha. When the equation is adjusted to include confounders, the odds ratio reduces to 1.1 times. However, variation in the odds ratios between farmers owning 1.0 to 1.4 ha and those owning less than 1 ha is not significant. Nonetheless, the size of land owned by small-scale farmers influences the chances of their credit request being successful, thus the larger the land size is, the greater the chances that credit requests will be successful are. Furthermore, Kisumu farmers owning 2.5 to 2.9 ha of land were about 0.3 times less likely to have successful credit request than their colleagues in Kiambu. However, variation between the two groups was, however, not significant. Similarly, Kisumu farmers owning 1.0 to 1.4 ha of land were 0.7 times less likely to access bank credit than Kiambu farmers owning the same size of land. Again, variation between the two groups is not significant, suggesting that land size influences access to bank credit equally in both regions.

**Farming experience.** The results in model one shows that farmers with 15 years experience were 1.5 times more likely to have successful credit request than farmers with less than five years experience. Adjusting the model to include confounders, the odds ratio reduces marginally to 1.4 times as indicated in the second model. The difference in accessing bank credit between the two groups is significant at 0.01 error margin, suggesting up to 99 percent chances that the duration of farming experience influences access to bank credit. In addition, model one shows that farmers with 10 to 14 years farming experience were 1.2 times more likely to have successful credit request than farmers with less than five years experience. When the equation is adjusted for confounders, the odds ratio increases to 1.4 times, as shown in the second model. Again, variation between the two groups is significant at 0.01 error margin, suggesting that the duration of farming experience influences access to bank credit. Generally, the results show that the longer that the farming experience is, the greater the chances that a farmer’s credit request will be successful are.

**Marital status.** Model one shows that unmarried farmers were about 0.7 times less likely to have their credit requests successful than widowed farmers. However, when the model is adjusted to include confounding
variables, the odds ratio reduces marginally to about 0.6 times. Furthermore, married farmers were about 2.1 times more likely to have their credit requests successful than widowed farmers. When the equation is expanded to include confounders, the odds ratio increases marginally to 2.4 times as indicated in the second model. Again, variation between the two groups is significant at 0.01 error margin, implying that farmers in marriage were accessing bank credit more than widowed farmers. The analysis further revealed that single farmers in Kisumu were 0.5 times less likely to have successful credit request that their counterparts in Kiambu. However, variation in accessing bank credit between the two groups is not significant. However, between Kiambu farmers in marriage were about 1.8 times more likely to have successful credit request than their counterparts in Kisumu. Again, the variation was significant at 0.05 error margin, implying up to 95 percent chances that marital status influences access to bank credit among small-scale farmers.

**District of residence.** District of residence was treated as a confounding variable in the equation. The two districts covered by the study have distinct development indicators, including per capita income and longevity among others. The results in Table 6 show that Kiambu farmers were about 2.4 times more likely to have successful credit request than their colleagues in Kisumu. The variation in access to bank credit between the two groups is significant at 0.01 error margin, suggesting up to 99 percent chances that Kiambu farmers had greater access to bank credit than their counterparts in Kisumu.

**Source of information on bank credit.** The most important source of information on bank credit was also handled as a confounding variable to the success of credit request by small-scale farmers. In this regard, the results show that farmers who got information through Agricultural Society of Kenya (ASK) were about 1.7 times more likely to have successful credit request than farmers who received information mainly through the banks. Variation in access to bank credit between the two groups is not significant, suggesting that ASK shows played just as an important role as banks in informing small-scale farmers. Besides, farmers who received information on bank credit through friends were about 0.4 times less likely to have successful credit request than farmers who received the same information through the banks.

Variation between the two groups in terms of access to bank credit is significant at 0.05 error margin, which suggests that farmers who received information mainly through friends were less likely have successful credit application than those informed by the banks. Although most small-scale farmers have limited information about credit products provided by intermediary commercial banks, it is apparent that source of information on the same subject influences access to bank credit, as some sources such as friends may not provide accurate information. Further analysis indicated that Kisumu farmers who received information through ASK shows were 1.2 times more likely to have successful credit request than Kiambu farmers who got information through the same source. However, variation in bank credit access between the two groups is not significant, suggesting that the two are not significantly different in accessing bank credit.

**Banking institution.** Banking institutions vary in terms of credit management policies, which is one of the factors confounding the success of credit request made by small-scale farmers. Although the joint initiative was formalized through MoUs specifying credit terms for small-scale farmers, banking institutions modified such specifications in effort to minimize risks. In this regard, Table 6 shows that farmers applying for credit from Equity Bank (Equity) were about 0.6 times less likely to have their credit requests successful than farmers applying for the same amount of credit through Cooperative Bank (Coop). However, variation in access to bank
credit between farmers applying through Equity and those applying through Coop is not significant, implying that there was no significant difference in the lending policies of the two institutions. The analysis also revealed that Kiambu farmers requesting for credit from Equity were 1.9 times more likely to have their requests successful than Kisumu farmers requesting for credit from the same bank. Variation between the two groups in accessing bank credit is significant at 0.05 error margin, implying up to 95 percent chances that Kiambu farmers had greater access to credit facilities provided by equity than Kisumu farmers. Furthermore, Kiambu farmers requesting for credit from Coop were 0.4 times less likely to succeed than their counterparts in Kisumu. Variation between the two groups is not significant, thus, suggesting farmers in both regions were not significantly different in accessing credit facilities provided by Coop.

**Number of previous applications for bank credit.** Access to bank credit may further be confounded by the number of previous requests made to the same banking institution. In this regard, the results show that farmers who had requested for credit more than thrice earlier were about 2.7 times more likely to succeed than farmers making their first requests. This suggests that the number of previous applications influences the success of current request for credit. Similarly, farmers who had made three requests previously were about 1.7 times more likely to have their credit applications successful than farmers applying for the first time. The results show that prior experience in applying for bank credit influences the chance of having a successful credit request. Furthermore, Kisumu farmers who had applied for credit more than thrice were 0.6 less likely to succeed than their counterparts in Kiambu. However, variation in access to bank credit between the two groups is not significant. Besides, Kiambu farmers who had requested for bank credit thrice previously were 1.5 times more likely to succeed than Kisumu farmers who had also made similar previous attempts. Again, variation between the two groups is not significant. This suggests that the number of previous applications for bank credit influences the success of subsequent credit request in both regions.

**Goodness-of-fit of the Model**

In binary logistic regression, the predictive power of a model is indicated by the change in -2 Log Likelihood (-2LL) statistic each time a variable is added into the models. Each model generates an initial -2LL (chance model), the unit change in the value of -2LL statistic also represents the proportion of variance in the predicted variable, explained by a covariate. Figure 5 shows the covariates used in this study and the proportion of variance in the success of credit request by small-scale farmers explained by each.
Figure 5 shows the net effects of each covariate, which have been converted into percentages. In model one, education level accounts for the highest proportion of variance in the success of credit request by small-scale farmers (11.4%), followed by income level (9.2%), land size (8.5%), and gender of the respondents (7.6%). The sum of proportions contributed by each covariate is 48.6 percent. This shows that model one explains up to 48.6 percent of variance in the success of credit request by small-scale farmers. This corresponds with the difference between the chance model and the final -2LL function, for which the analysis obtained a calculated χ² value of 25.265, with six degrees of freedom, implying that the model is significant at 0.01 error margin.

When the model is adjusted for confounders, income level accounts for up to 10.7 percent of variance in the success of credit request by small-scale farmers, followed by education level (9.2%), gender (8.2%), and land size (7.8%). The sum of all covariates totals 68.6 percent. Thus, adjusting the model for confounders increases the proportion of variance in the success of credit request explained from 48.6 percent to 68.6 percent. The remaining 31.4 percent may be accounted for by other variables not included in the model. In model two, the difference between the chance model and the final -2LL is significant at 0.01 error margin (calculated χ² = 18.134; 9 degrees of freedom).

**Conclusions and Policy Implications**

The broad objective of this study was to determine factors influencing access to bank credit by small-scale farmers, focusing on the partnership initiative between GoK and selected commercial banks. The study was necessitated by lack of a comprehensive empirical investigation, documenting issues raised in anecdotal literature about effectiveness of the partnership initiative in enhancing access to credit for small-scale farmers. The study assessed various attributes of farmers, which included demographic and socio-economic attributes, as well as economic factors specific to farming practices. The analysis revealed that access to bank credit was significantly related to farmers’ gender, marital status, education level, income level, type of land tenure, land size, farming experience, and number of previous credit requests. In addition, credit access was significantly associated with intermediate variables such as district of residence, banking institution, number of previous credit requests, and main source of information about bank credit services.

Regarding information sources, out of 271 farmers, 48.3 percent listen to radio, 38.0 percent watch TV, and 17.0 percent read newspapers on a daily basis, thus, radio emerges as the most important form of mass media accessible to farmers. Access to mass media is critical for information on new credit products. Farmers with frequent access to mass media channels such as radio, TV, and newspaper are likely to be more informed than those with limited or no access. Based on this premise, Kiambu farmers, with greater access to radio and TV, were likely to be more exposed and informed about the credit market than their counterparts in Kisumu. It’s no surprise that in Kiambu, up to 56.3 percent of farmers requesting for credit were successful, compared with Kisumu where only 37.8 percent reported success.

The most important information sources included ASK shows (32.5%), friends (26.9%), and the banks (19.6%). In Kisumu, the most important sources of information included friends (35.4%), ASK shows (33.9%), and banks (14.2%); while in Kiambu, main information sources included ASK shows (31.9%), banks (24.3%), and friends (19.4%). ASK shows provided a suitable forum through which farmers received information about bank credit services. However, more farmers in Kiambu than in Kisumu received information directly from the
banks. Emerging from the findings is that little to no effort was made to popularize the partnerships initiative among farmers, particularly through the mass media. This affected the uptake of credit services, particularly in Kisumu, where its access was much lower. Although the credit facilities had been in existence for about three years, it emerged that most farmers were not aware of the initiative. Besides, due to limited publicity through radio, TV, and newspaper, the linkage between exposure to mass media and access to bank credit was not significant. However, mass media remain a key channel through which small scale-farmers can be reached with information on formal credit facilities designed to meet their needs. Informing farmers about bank credit products is particularly necessary to clear misconceptions and myths which are often associated with bank credit.

Through multivariate analysis, it was noted that Kiambu farmers were about 2.4 times more likely to have successful credit request than their colleagues in Kisumu. The variation between the two groups may be attributed to various factors, favoring Kiambu farmers, for instance, greater access to information directly from the banks, which may be comprehensive than tit bits provided during ASK shows or by friends. Besides, the variation may be attributed to difference in economic power, which may have implications on the ability to raise required collateral. With a mean income of KES 66,771, Kiambu farmers were significantly stronger economically than their Kisumu counterparts whose income averaged KES 55,654. In addition, credit requests by men were about 1.3 times more likely to succeed than credit requests by women. The variation between men and women in accessing bank credit was stronger in Kisumu than in Kiambu, implying that Kiambu women were about 4.3 times more likely to access bank credit than their Kisumu counterparts. Until recently, women have been at a disadvantaged position to access bank credit, particularly due to limited access and ownership of properties such as land and capital equipments, which can be used as collateral. Creating special credit packages for women in response to their unique socio-economic attributes, challenges and circumstances farmers may be a positive step in strengthening agriculture to effectively alleviate poverty and hunger.

In relation to education level, the study found that the higher the education level is, the greater the chances of farmers accessing bank credit are. In other words, farmers with university and college education were 1.4 and 1.1 times, respectively, more likely to access bank credit than those with no formal education. In the regions, Kiambu farmers holding university degrees were about 0.8 times more likely to access bank credit that Kisumu farmers with the same education level. In addition, Kiambu farmers with no formal education were about 1.4 times more likely to access credit than their Kisumu counterparts. Such imbalances indicate how varied access to bank credit was between the two regions. Nonetheless, pegging credit access on education level may lock out many farmers with lower formal education. In this study, up to 14 percent of the farmers had less than secondary education. Although education level is an important criterion for accessing loans, locking out many farmers with no education may limit the potential of small-scale farming in poverty alleviation and hunger reduction. This necessitates a training program on credit access and management, without which, even farmers with university education are at the risk of mismanaging credit funds.

Regional imbalances are also evident in terms of income level, where Kiambu farmers in the top income group (KES 150,000+), were about 0.6 times more likely to access credit than their counterparts in Kisumu, in terms of land tenure, Kiambu farmers owning land singly were 1.6 times more likely to access credit than their Kisumu counterparts, while in terms of land size, Kisumu farmers owning 2.5 to 2.9 ha of land were about 0.3 times less likely to access credit than their colleagues in Kiambu. Regional imbalance is also noted in terms of
banking institutions, where Kiambu farmers requesting for credit from Equity were 1.9 times more likely to access credit than Kisumu farmers requesting for credit from the same bank. This further confirms that Kiambu farmers had greater access to credit facilities provided by equity than Kisumu farmers. Formulating appropriate internal control mechanisms is likely to minimize such regional imbalances to ensure that the initiative does not operate as a political tool.

Overall, the main factors influencing access to bank credit under the partnership initiative include income level which accounts for up to 10.7 percent of variance in the success of credit request by farmers, education level (9.2%); gender (8.2%), land size (7.8%), district of residence (6.4%), marital status (5.6%), years of farming experience (4.8%), land tenure (4.1%), information source (4.1%), number of previous requests (3.9%), and banking institution (3.8%). The model explains up to 68.6 percent of variance in the access to bank credit. Although the partnership initiative is an innovative approach for enhancing access to bank credit for small-scale farmers, its potential has not been fully exploited. Out of 271 applicants, only 47.6 percent managed to access credit. This means that slightly more than half of small-scale farmers may not be accessing credit under the initiative. It is important for the banks to do more than just awarding credit. Initiating appropriate measures to inform farmers and help them meet prequalification conditions will go a long way in making the initiative more responsive to financing needs of small-scale farmers.

Directions for Further Research

Commercial banks are crucial in funding economic activities in various sectors, including agriculture. In Kenya, commercial banks have not been fully supportive to small-scale farming activities. As a result, such farmers have been coping by sourcing financial support from alternative sources, albeit not sufficient to address their financing needs. This study did not assess coping measures initiated by small-scale farmers and their effectiveness. Access to formal credit services is necessary for small-scale farmers to improve their productivity by enabling farmers to afford farm inputs and technology. This study did not assess the impacts of credit access and change in production level. Future studies should consider investigating and shedding more light on these areas.

References


How Do Companies Achieve Their Marketing Goals With Social Networks?

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This work examines the role of social network sites as a tool used by companies to achieve marketing goals. As known from the main business literature, the social network represents one of the most important instruments to improve the company's fame by strengthening the affection of customers to the brand. For this reason, some companies use these tools to build relations and contacts with customers all over the world. The population of social networks users is made, for the most parts, of youngsters (people belonging to the 13-30 years old cluster). In the last years, with the social web networking, social communication lost the exclusive social meaning and social network sites become strategic instruments for the construction of powerful relations that connect people with people and people with firms. This work is aimed at clarifying the genesis and the evolution of the relations between companies and potential customers, focusing on the tools used by the firm to achieve their marketing goals through social network sites (SNSs). First of all, the work proposes the recognition of some studies about the origin of web social network and their links with marketing strategies. Secondly, it considers marketing goals achieved from any companies through social networking with a particular focus on advertising through web social networking.

Keywords: Social network sites (SNSs), marketing, youngers, brand value, relationship with customers

The Origin of Marketing in Social Network Sites: From Social Marketing to Network Science

Social marketing founds its origins in the 1970s, before these years it was possible to find only advertising awareness campaigns for public and social issue (Wiebe, 1951). According to McGovern (2007), social marketing aim is to understand how individuals percept themselves and firms and how the influence of others (of the group) can shape them in their behaviours (Pechman, 2002).

Between the 1970s and the 1980s different awareness campaigns on the theme of social advertising (e.g.,...
campaigns on social responsibility, family, diseases) had been developed and the campaigns against smoke represented a specific example of this.

Social marketing campaigns became wider through the integrated marketing (Kotler & Lee, 2007; Geary, 2007) and the relevance of the network role into the business world and society having represented the connection between marketing, internet, and social networking, in particular, there is a relevant literature on network science that represents the connection between social, business, and marketing studies. In this connection, we find studies on social marketing and social network marketing that find material instruments in Social network sites (SNSs). Some foundational concepts have been studied in the past about network science: the different types of relation in networks (Lechner & Dowling, 2003); survivor, performance, and development of entrepreneurial societies as focus of research (Gartner, 1985; Bygrave & Hofer, 1991; Venkataraman, 1997; Shane & Venkataraman, 2000). The network is a more important model of organizations development (Richardson, 1972; Powell, 1987, 1990). People are as resources in a network (Granovetter, 1974, 1985; Easton, 1992), the network is as particular form of governance and the loyalty in the network as relevant assets (Richardson 1972; Powell, 1987; Larson, 1992). The network takes different forms as time goes on (Larson, 1992). Between 2005 and 2010, the internet use as promotion of the advertising campaigns began to take relevance because of the possibility, that this technological tool gives, to optimize relation and segmentation toward different customers with appropriate use of ad hoc messages and thanks to benefits that customers find in a correct behaviour toward society.

Some studies demonstrate that a high level of involvement and interactivity can give a better participation and a positive approach to websites (Kalyanaraman & Sundar, 2003), this approach aims at a value co-creation and a powerful relations with customers. In particular, customers are particularly influenced by firms (Kreuter, 1999) but also by other customers that publish their considerations online (Awad, Dellarocas, & Zhang, 2006; Weiss, 2008). Boyd and Ellison (2007) studying social network sites say that

Social network sites as web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site. (p. 211)

New media can take advantage of social marketing benefits using some important tools: attention and conservation, for example, are two elements which carry out a kind of research about consumptions sounding out a very strong propension towards the use of new multimedia technologies in order to modify the individual attitude by underlining the importance of interactive tools (Ferney & Marshall, 2006; Hu & Sunder, 2010; Binks & Van Mierlo, 2010). New media technologies permit constant communication with customers and provide them opportunities to give and receive feedbacks. In particular, through integrated forms of communication (e-mails, messages), firms can try to modify long term practices of customers (verbal persuasion). Customers have an active role in the relation with SNSs because they can present data about their needs and developing, in this way, intervention and personalized objectives (control).

The technique of web marketing has to be integrated with the most recent social marketing, for companies, social marketing means to promote and to manage public relations in order to obtain reputation and loyalty. A
correct activity of social media marketing implies the creation and management of a social profile through a website (facebook, twitter, google, linked in) which is correct, sincere and planned to permit a user friendly consultation.

Only few entrepreneurs (especially in Italy and between SMEs) use to manage social media marketing to improve the interaction with customers and, for example, to increase sales, loyalty, and brand value. Aversion to the use of social network sites is higher for small and medium enterprises which cannot coordinate themselves with the speed of the web (Freeman, 2010) and, frequently, have not economic and human resources to manage SNSs internally. At the same time, with the increase of the relevance of these instruments and strategies, some SMEs have known the power of these tools and, for this reason, have chosen on the one hand a direct management of social networks (expensive activity that give results in medium-long period) and, on the other hand, the investment in online advertisings using SNSs, this last tool contributes principally to the strengthening of brand value.

**The Youngers Cluster and Social Network Sites (SNSs)**

The youngers cluster is composed by young people that represent a target for many firms and the first supporters of Social Network Sites (SNSs). In this work, according to the European Commission, we consider in this cluster people are from 13 to 30 years old (SNSs are frequented also by people of other age clusters until 70 years old). The range name “youngers”, now also accepted by the scientific community, has acquired this classification also according to some programs created by the European Commission independently of the research projects that involve the Internet. Just to study the age range of those who use Facebook or SNSs in general, it has been carried out a study of sampling and data collection based on researches that, in turn, have used data from university centre (Ellison, Steinfield, & Lampe, 2007). In order to attract several people from a variety of States and Universities, the study has been founded on a Facebook research. In particular, the survey has been started by an email invitation sent through a Facebook account, for first to students of a university placed in the Midwestern United States, which asked them to forward the e-mail to their colleagues. Participation was voluntary and those who completed the survey received an extra credit as compensation for their involvement. In addition, all participants were included in a project which provided the delivery of a $50 gift card for purchases to be done in any Apple Computer store, the online data revealed the participation of 302 members found in a limited geographic area and in a short time and most of them belonged to an age range that goes from 18 to 24 years old. This is an element that allows to perfectly understand the power of SNSs on the youngers. As in the USA, also in Italy the age range of SNSs frequently users refers to a cluster from 13 to 30 years old and it represents people who use SNSs especially to joke, to find new friends, to exchange considerations on products and services.

**Marketing and Social Network Sites (SNSs)**

SNSs allow the development of a value creation process within the customers’ mind and it helps to enhance the perception of the brand value by strengthening the relationships between companies and customers. SNSs are used as tools to monitor, to report and to have a direct contact with customer and an amplification of business communication.
HOW DO COMPANIES ACHIEVE THEIR MARKETING GOALS WITH SOCIAL NETWORKS?

The monitoring concept is complex but relevant in marketing and, in SNSs, it involves the control of posts, discussions, exchanges of information, and commentaries, but also the mood of customers in different stages of the business approaches (company and product offerings exploration, product-service purchase, aftersales). The relationship between firm and customer can be direct (business-to-customer) or indirect—in this case, the firm can monitor chats, comments from expert customers and firm, fans who express negative (or positive) opinions on the product-service performance.

The amplification concept of brands value, products, and firm services involves a planning of the marketing activities which is able to multiply the number of customers who speak about topics connected with the company, to increase the positive feedback about brands and products, to encourage the word—of mouth advertising among customers who have lost faith in traditional advertisings.

Hoang and Antoncic (2003) led for 15 years a research on the effects that the network (in general) has on firm activities. In a similar study, Kock and Coviello (2010) sustained that it could improve the activities of small and medium-sized enterprises and, in particular, they paid attention to the Information and Communication Technology (ICT) companies and their way of using the network to reach globalization. An efficient use of the network allows companies to overcome some obstacles such as their relatively small size, their lack of internal resources, their distance from international markets. Some searches have shown that SMEs can simplify the process of product sale in international markets through the efficient use of networks (Chetty & Wilson, 2003; Coviello & Munro, 1997).

The use of SNSs is therefore fundamental for the business activities of companies because they offer alternative strategies to improve the relation between firm and customer and to minimize, through web technology, the weaknesses that could come out starting a physical relational network. Through the SNSs, companies start various activities to enhance brand value, to acquire information, to develop the relationship with customers.

With a marketing approach, there are different schemes through which it is possible to analyse information and to empower customers relationship. Between the 1980s and the 1990s, the scheme of relational marketing analysed different tools to improve the customer relation with firms (call centre, information phone numbers, customer care supports, etc.), the main aim of these instruments was the empowerment of the relation with customers through the direct contact with them even if, often, the input of the report took place in an unidirectional manner (company-customer) and, sometimes, it was resolved with a response from the company though it came from the consumer. Through SNSs, companies move towards a value co-creation based on a continuous exchange of views and information on products/produced services.

The evolution of marketing studies brings the researcher to investigate the role of the brand and its position within the marketing strategy. In particular, thinking the brand as a relational network, some powerful investments, as social network sites, are right tools to strengthen the relation between customers and firms.

A first tool used for the collection of information is the social media monitoring which differs from traditional searches because it comes out of the classic rule of rigidly fixed questions and it allows to discover free comments and, sometimes, additional elements and comments on competitors’ products. In social media monitoring, unlike the interviews, considerations are spontaneous and not constrained by the necessary response to a questionnaire or an interviewer; with the online publication of the answers, opportunities of involving and
influencing other customers have proliferated and contributed to the generation of opinions and considerations. Most used tools are Social Mention, Addictomatic, IceRocket, and specific software such as: NetMiner, NodeXL, Gephi (Dardi, 2011).

With the development of these new technics in marketing management, the role of new managerial figures becomes relevant in the company:

- The social media manager who plans the development of activities on SNSs and defines team roles and responsibilities in goals;
- The community manager who manages company profiles on various social media monitoring conversations;
- The social media analyst who controls the online data, sentiments, and the relations with customers (Cosenza, 2010).

The conversation monitoring is very important because it allows to understand opinions, needs, languages, and customers’ wishes. The following step is to establish a sincere dialogue with users, avoiding advertising tone because, otherwise, the company could be excluded from conversations in the medium and long period. In order to create and consolidate a relationship with a wide audience, especially the youngsters, companies must offer interesting, useful, and nice content.

**Strengths and Weaknesses of Advertising in SNSs**

Advertising is a relevant argument for SNSs and, sometimes, in SNSs, it has a viral form. Starting from Porter and Golan (2006) considerations, we can look at the viral advertising as a kind of provocative communication which influences and persuades users through the use of the Internet. Some studies indicate that emotion is a relevant component of the viral advertisings: Phelps, Lewis, Mobilio, Perry, and Raman (2004), for example, explaining how the sender of viral messages tends to produce emotions that lead customers to positively experience; Some authors argue that the emotional component plays a critical role in influencing customer behavior but, to do this, it is necessary that messages contain a sort of surprise; Still, Eckler and Bolls (2011) have studied how the emotional tone of viral video influenced users, in particular, young people involved in SNSs. SNSs have drastically changed the way in which customers respond to advertisements and not everybody, however, appreciate them on social networks. According to an AdReaction’s study (2010), only the 22% of customers had a positive attitude towards the viral advertisings, while the 8% of them left a SNS because they perceived an excess of the advertising activity. Anyway, there are also some other reasons that bring companies toward the disuse of social networks:

- the growing number of platforms that make it difficult to locate where conversations take place between users;
- the difficulty in measuring the return on investment;
- the difficulty of social media monitoring.

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1 The decrease in the use of Myspace, for example, is principally due to the presence of unwanted and unsolicited advertising messages (Vara, 2006). Even Facebook has not been immune to the criticism about the use of advertising.
The main obstacle to social networks advertising is the intrusiveness level perceived by users: an advertisement can be defined intrusive when it distracts or irritates the customers (Lee, 2002) (measuring the intrusiveness of advertisements: scale development and validation).

Customers perceive an implicit social contract with advertisers in the case of traditional medias (television, radio, print) as they have free or reduce-price programs dedicated to advertising activities (Gordon & De Lima-Turner, 1997). Vice versa Internet customers do not perceive the advertising as a contract, but as an intrusive and annoying deviation (Mathews, 2000; Gaffney, 2001). Nowadays, there are some studies suggesting that the most loyal users of the Internet perceive online advertisements as a negative factor as it imply the constant needs of protecting their privacies (Castaneda & Montoro, 2007). The use of information collection, in fact, cannot be controlled and, frequently, users do not know that web sites are collecting their private data (Milne, 2000).

The online advertising is very important for business companies and users spend more and more time on SNSs: from an average of three hours per week in December 2008 we had got to an average of 5.5 hours per week during December 2010 (Nielsenwire, 2010). Researchers have argued that, at the same time, we have to understand why people use SNSs but also how they respond to the advertising activities (Rodgers & Thorson, 2009). Some authors (Stafford, 2008; Stafford & Schkade, 2004) have suggested that the main reasons which bring users to netsurf includes structural factors, content factors (information, entertainment), and socialization factors (for example, connecting with others). According to the theory of the uses and gratifications (Katz & Foulkes, 1962), customers are actively seeking ways to satisfy needs both hedonistic and utilitarian, for example, they can watch television to be entertained by a movie or to be informed by a documentary or news program. Therefore, this theory shows that the value of an advertisement derives from its capacity to satisfy the needs of entertainment, evasion, fun, and emotional release of customers (McQuail, 1983).

Customers can use SNSs to escape from boredom but, often, these sites represent a part of their daily routine. Lull (1980) proposed a classification of utilitarian and hedonic motivations in media use, distinguishing structural dimension (the use of a media to have information or entertainment), and relational dimension (use a media to facilitate relations or interpersonal communications). Although the theory had been conceived to explain the use of television and other old forms of media, in the late 1990s it had also been applied to Internet world (Eighmey, 1997; Eighmey & McCord, 1998; Stafford & Schkade, 2004), viral advertising (Rodgers & Thorson, 2000), mobile advertising (Peters, Amato, & Hollenbeck, 2007), and SNSs studies (Joinson, 2008).

But what is the content an advertisement should have? According to some authors, the advertisement become relevant just for its informative content, i.e., a content that informs users about alternative products, social responsibility or environmental safeguard (Rotzoll, Haefner, & Sondage, 1990). According to others, the advertisement has to show accurate representations of the products in order to guide the customer perception (Andrews, 1989), the content of an advertisement, according to some scholars (Darley, 1995) are perceived differently by men and women, as well as their motivations to use the Internet are different (Weiser, 2000; Wolin & Korgaonkar, 2003), from this point of view, the information is also relevant for SNSs contents that improve the possibility to have a good visibility through different people genders. Men are more inclined to use the Internet for entertainment, while women use it to communicate or interact with others, also the idea each group has about privacy is different: women are in fact more predisposed to protect their privacies. At the same way,
while adults care about the privacy invasion threatened by markets and information researchs, on the contrary teenagers and young adults freely disclose personal and private information on SNSs (Barnes, 2006). This reality creates, at the same time, an opportunity for firms and a risk for people, youngsters who become adults will have problems to shift their generality through a more reserved profile and, maybe, they could become the target of different firms that know these people since their young age. Barnes (2006) called this situation the privacy paradox: the author argues that it occurs when users, especially teenagers, are not aware of the Internet nature. However, Acquisti and Gross (2006) explained this phenomenon as a disconnection between the users’ desire to protect their privacy and their effective behaviour, in the beginning, the SNSs have simply represented a means to send messages and view friends’ photos, but later, many features had been added, including special interest groups (45 million in 2009), web links, news, and blogs.

Managerial Implications and Practices

SNSs do not have the same conformation all over the world although marketing goals are often the same in all countries: brand visibility, value and customer relation improvement, fidelization and loyalty to firm and to product/services. However in some countries, we find different approaches that involve different types of SNSs power.

There are a lot of case studies containing different experiences in different countries around the world to discuss.

In China, for example, because of the government censure, relevant SNSs cannot enter in the country and for this reason we just find the development of local social networks as RenRen, Weibo, Qzone and others, although this online social networks are unknown all over the world, they have millions of users in China.

The success of this social network is guaranteed and it represents an opportunity for firms that need advertisings in Chinese market. Demographic data, in fact, underline that the number of Chinese web users has increased: from 265 million in 2010 to 500 million in 2011. Some of these social networks, such as RenRen, Sina, and Weibon are also quoted on the stock exchange. Here is a brief list of firms present on these social networks: Lancome that guides the customers on the choice of beauty product; Louis Vuitton aims at high quality video, images, and events to attract customers. This demonstrates that Chinese social network have the same function of western ones: young Chinese users speak with their contemporaries through blogs and thanks to the advertisements inserted on them, they become loyal to a certain brand or product.

There are other successful cases of traditional companies:

FORD: when Ford entered for the second time the American market with Fiesta Subcompact Car model, it began a wide marketing campaign called Fiesta Movement. The video of Fiesta campaign have generated 6.5 million of visualization on You Tube, and Ford has received 50,000 requests of information about the product, in particular from no-Ford-driver.

PepsiCO: PepsiCO used SNSs to find information about customers and it created a new brand for a new drink through a new campaign of promotion named DEWmocracy. In Italy, we can find many cases of SNSs use in marketing strategies by Ikea, Media World, Euronics, La Feltrinelli. In particular OssCom, Cattolica University’s research centre of communication and media, and Digital PR, consulting agency of communication, have studied firms communication on social media in Italy, by monitoring the communication activities of 20
chain stores active at national level in sport, clothes, customer electronics, publishing, and multimedia sector, they have drawn up a classification based on degree of exposition in social media, using of digital spaces and kinds of interaction with customers.

In particular, the positioning of the firms has been influenced by the frequency of profile revisions, but also by the amount of Facebook comments and links or Twitter retweet. The research has underlined that the highest step on the podium belongs to Ikea that implements communications strategies through an intensive multiplatform involving Facebook, Twitter, YouTube. Media World, Euronics and La feltrinelli implement similar strategies but they do not reach the same result of the Swedish brand. Ikea, in fact, gains success with its customers especially through comment on the projects and suggestion on products and combinations.

The most active sector on social media is that one referred to furniture and bricolage, publishing and multimedia, customer and electronic field. These sectors, in fact, use to work on constricted geographical zones so that SNSs become useful in order to calibrate offers, customize promotions, etc.. On the contrary, companies belonging to the clothing field, for example, as it is referred to a more global business, must take care of the relationship with a large amount of customers (which are different in each part of the world) and must also pay attention to the improvement of the brand reputation.

In short, nowadays, companies which use social media for their business cannot focus their attention, as in the past, just on the product that must be sponsored, but they must demonstrate a capability in shifting their focus especially on the relation with customers and brand reputation.

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HOW DO COMPANIES ACHIEVE THEIR MARKETING GOALS WITH SOCIAL NETWORKS?


How do companies achieve their marketing goals with social networks?


Four-Closure: How Amazon, Apple, Facebook & Google Are Driving Business Model Innovation

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This paper explores the rapid growth of four internet-based corporations and critiques the extent to which the Internet has developed from being simply a powerful tool and enabler of industry innovation to achieving status as a fully-fledged technology-based business ecosystem. The need to develop new management theories, tools, and techniques to compete with the “Gang of Four” (Amazon, Apple, Google, and Facebook) is also discussed in some depth as well as providing a critique of traditional models/strategic approaches and more recent theories. This is considered to be an important area of research because as a new class of Internet company emerges, incumbent firms in traditional industries will need to know how to prepare for the new challenges that face them.

Keywords: business ecosystem, platforms, catalyst, infomediaries, white space, blue ocean strategy

Introduction

It is the purpose of this paper to analyse the recent rise to prominence of four Internet-based companies, Amazon, Apple, Google, and Facebook, and to explore the significance of their success in terms of their impacts on traditional business models and paradigms relating to the strategic management of modern businesses. The paper will evaluate the rapid exponential growth of these four technology leaders and compare and contrast a range of management tools and approaches. The paper will also critique existing paradigms relating to the role of the Internet and the extent to which it has become a platform ecosystem in its own right.

The Four Horseman of the Apocalypse

Whilst attending the All Things Digital Conference (California) on the May 31st, 2011, Eric Schmidt, executive chairman of Google, made a widely-reported presentation in which he said that Amazon, Apple, Google, and Facebook were leading an Internet-based consumer revolution. He named these companies as the “Gang of Four” and said that they had replaced the previous four technology titans, namely, Intel, Microsoft, Cisco, and Dell. According to Schmidt, although the “Gang of Four’s” predecessors were still highly successful, they were no longer driving the consumer revolution. Schmidt went on to say that the new technology titans were platforms in their own right who competed and cooperated in various ways but each had their own unique strength. For example, Google was strong in search; Facebook was strong in social networking; Amazon was strong in e-commerce; and Apple was strong in devices. He also added that the benefits being appropriated by these large companies were equally impressive with a combined worth of half a trillion dollars.
Schmidt’s conference presentation raised a number of very important questions regarding how managers viewed the Internet and the strategic approaches and management techniques they should deploy in order to compete with these new digital technology leaders. These concerns are of particular relevance to information and data-intensive industries such as home-entertainment and publishing as well as computing, mobile telecommunications, and advertising etc.

**The Role and Importance of the Internet**

For a number of years following the inception of Sir Tim Berners-Lee’s World Wide Web in 1991, the Internet was viewed as an environmental technology driver of many industries which could have both a complementary and a disruptive affect. Wal-Mart used the Internet to enhance organisational performance in all areas of the company ranging from front office CRM to back-office logistics whereas other industries experienced a serious decline in revenues, particularly the home entertainment industries.

Porter (2001) in his paper *Strategy and the Internet* said:

> The Internet is no more than a tool—albeit a powerful one—that can support or damage your firm’s strategic positioning. (p. 63)

> …the Internet… is an enabling technology—a powerful set of tools that can be used, wisely or unwisely, in almost any industry and as part of almost any strategy. (p. 64)

Hamel (2007) in his book *The Future of Management* also commented as follows:

> The web has evolved faster than anything human beings have ever created—largely because it is not a hierarchy. The web is all periphery and no centre. In that sense, it is a direct affront to the organisational model that has predominated since the beginnings of human history. (p. 252)

Moore (1996) and Iansiti and Levien (2004) in their respective work on business ecosystems also referred to the Internet as an enabler, facilitator, or environmental driver. However, Moore’s (1996) research on business ecosystems pre-dated the modern development of the Internet whilst Porter (2001) and Iansiti and Levien’s (2004) research was conducted in the “shadow” of the dotcoming collapse when the Internet was not considered to be fully mature or robust.

If we investigate Moore’s (1996) theory of business ecosystems further using the following definition, this helps to create more insight into the true role of the Internet today. Moore (1996) defined a business ecosystem as:

> An economic community supported by a foundation of interacting organizations and individuals—the organisms of the business world. This economic community produces goods and services of value to customers, who are themselves members of the ecosystem. The member organizations also include suppliers, lead producers, competitors, and other stakeholders. Over time, they co-evolve their capabilities and roles, and tend to align themselves with the directions set by one or more central companies. Those companies holding leadership roles may change over time, but the function of ecosystem leader is valued by the community because it enables members to move toward shared visions to align their investments and to find mutually supportive roles. (p. 26)

Analysing Moore’s definition it would appear that the “Gang of Four” have developed their own ecosystems along the lines prescribed by Moore. However, in addition to Moore’s (1996) theory, the importance of the technology platform and gaining a leadership position has become increasingly important. In his conference speech, Schmidt referred to each member of the “Gang of Four” as having their own platform.
This also applies to the four technological predecessors—Intel, Microsoft, Cisco, and Dell. One could therefore view a modern ecosystem as comprising a combination of smaller ecosystems platforms linked to a central technology platform upon which they are dependent for growth. Since information is the lifeblood of all organisations and the Internet provides a global digital platform for its utilisation and dissemination that raises the question “is it just a tool and environmental driver or is it an ecosystem in its own right?” The very fact that four major corporations are vying to gain a leadership position on the Internet and are having such a massive financial and consumer impact seriously undermines the paradigm of the web as simply a peripheral enabling technology.

According to Moore’s (1993) evolutionary stages of a business ecosystem model, a business ecosystem passes through four stages, namely, stage 1: pioneer/birth; stage 2: expansion; stage 3: leadership; and stage 4: renewal. Looking at Table 1 we can see that the Internet has also undergone a similar evolutionary path. During the foundation stage and growth stage 1, the preliminary “Gang of Four”, Intel, Microsoft, Cisco, and Dell all played a major role in establishing the Internet infrastructure based on a common industry standard for PCs and through the widespread diffusion of personal computers. This was followed in growth stage 2 by the arrival of the new “Gang of Four”, Amazon, Apple, Facebook, and Google who became the drivers of consumer demands. This also equates to Moore’s (1993) stages 1-3.

Table 1

| The New Internet-Based Technology Ecosystem (Oestreicher & Walton, 2011) |
|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| Key technologies | Key technologies | Key technologies |
| Microprocessor | World wide web | Linux |
| MS Dos/Killer Apps | Digitisation | 3GSmartphones/iPads/e-readers/Phone Apps |
| Intel 486 & Pentium chips | Fibre optic cable | Encryption |
| Key Developments | Key developments | Key developments |
| Birth of the PC industry |Global village | Digital downloads and streaming |
| 1977: Apple 1-2 | E-commerce |Web 2.0 |
| IBM: Open architecture (the “clones”) | Dot com boom | Open source software |
| Industry (WINTEL) standard | Early search engines | Cloud computing |

Significant revenue declines experienced in the information and data-intensive industries following the rise of the “Gang of Four” would therefore imply that many of the incumbent firms failed to see the Internet as a fully-fledged business ecosystem capable of “creative destruction” (Schumpeter, 1942) but viewed it largely as a peripheral tool and environmental driver. This blind-sightedness and failure to respond has therefore been highly damaging.

Management Tools and Approaches

This brings us very appropriately to the important question of how to respond to the threats and challenges created by the “Gang of Four” and the extent to which contemporary management tools, theories, and techniques are suitable.

In his book The Future of Management, Hamel (2007) said that management was essentially a “product” and it should therefore be reinvented in the same way as equivalent tangible offerings in the marketplace:

Management innovation is anything that substantially alters the way in which the work of management is carried out or significantly modifies customary organisational forms and by doing so advances organisational goals. (p. 34)
Bearing this in mind it would therefore be a good idea to look at some traditional approaches to strategic analysis and the extent to which these might be modified to suit the changing environment that is being imposed by the “Gang of Four”.

One of the most respected and well-established approaches to strategy is Porter’s “Industry Structure View” based on the Five Forces Framework (1979) and Generic Strategy Model (1985). One of the main drawbacks of Porter’s Five Forces Framework is its static and linear nature. In dynamic, hyper competitive (D’Aveni, 1994) technology markets, the model has to be redrawn and updated on a regular basis as competitive positions change. The rigid industry boundaries are also irrelevant since the “Gang of Four” (despite their specialism) cannot be tied to a single industry. For example, Apple is a computer company operating in the telecoms, music, and film industries; Amazon is an online retailer which also distributes media content via hardware devices; Google is involved in books, software, and mobile phones; and Facebook now has online retailing capability. Moreover, all of these companies have a “cloud” computing capability. This illustrates what Moore (1996) defined as a business ecosystem:

What we are seeing is the end of industry… The traditional industry boundaries that we have all taken for granted are blurring—and in many cases crumbling… In place of “industry”, I suggest an alternative, more, appropriate term: business ecosystem… Business ecosystems span a variety of industries. The companies within them co-evolve capabilities around the innovation and competitively to support new products, satisfy customer needs and incorporate the next round of innovation. (p. 15)

This is in sharp contrast to Porter’s monopolistic competition and barriers to entry. An alternative approach is provided by Brandenburger and Nalebuff’s (1997) value net model. This removes “substitutes” and replaces them with “complements”. Instead of competing for market share in a zero sum game, businesses use complementary relationships to increase demands which sometimes result in co-operation with competitors, i.e., Google, Apple, and Amazon all developing content agreements with publishers, movie studios, and record companies. Finally, Grant (2008) also proposed a sixth force in Porter’s model which he also referred to as “complements”.

Instead of establishing a monopolistic competitive position in an industry, each member of the “Gang of Four” has developed their own ecosystem platforms. Maintaining a leadership position of these platforms and adding value to their ecosystem by encouraging a broad range of suppliers and complementors to contribute resources therefore becomes critical. This includes access to media content, computing hardware, applications, and third party vendors etc. The overall health of the ecosystem is subsequently more important than outright profitability:

Becoming a platform leader is like winning the Holy Grail… platform leaders who succeed can exert a strong influence over the direction of innovation in their industries and thus over the network of firms and customers—the “ecosystem”—that produces and uses complements. (Gawer & Cusumano, 2002, p. 245)

Each member of the Gang of Four has done an excellent job of building and managing its platform. And this is the main reason that each has enjoyed so much success over the last five years. (Simon, 2011, p. 41)

When competing for the platform leadership in a business ecosystem, Porter’s (1980) generic strategies of cost and differentiation also become redundant. Porter (2001) re-affirmed that the Internet by its very nature reduced costs and also removed any proprietary differentiation advantage. This is clearly illustrated in the digital download services being provided by three of the major players in the “Gang of Four”. However, instead
of establishing a cost or differentiation advantage, Iansiti and Levien (2004) proposed three types of ecosystem strategies which were keystone, dominator, and niche.

A keystone strategy is normally adopted by the platform leader, “…keystones provide a platform on which much of the rest of the ecosystem is built” (Iansiti & Levien, 2004, p. 71).

An effective keystone is therefore responsible for creating and sharing value and ensuring a healthy business ecosystem is maintained providing good financial returns all round. A dominator strategy is not dissimilar to monopolistic competition where a firm seeks to maximise value and returns at the expense of other players. This can be very destructive since it can dissuade suppliers and complementors from wanting to join the network or ecosystem. Finally, most firms in a business ecosystem pursue a niche’ strategy. These firms usually comprise the vast network of suppliers and complementors that are essential to the success of the platform leader. If an overly-aggressive dominator strategy is pursued by the platform leader this can reduce the number of niche’ firms, thereby reducing the overall health of the business ecosystem.

Due to the sheer scale of the modern internet-based business ecosystem (Walton et al., 2011) and the large network of niche’ suppliers and complementors, the traditional helicopter view (Ohmae, 1982) has been rendered inappropriate. This now requires the adoption of a satellite view (Walton et al., 2011) of the ecosystem network to understand its full potential impact.

Porter’s (1985) value chain is another model that has become of limited use when analysing the competitive strategies of internet-based platform companies such as the “Gang of Four”. The movement towards modular architectures has led to the disaggregation of value chains making the concept very difficult to apply to a broad disparate network of companies.

…modularity facilitates the development of complements. Modular designs can reduce the costs of innovation for outside firms and encourage the emergence of specialised companies that may invest heavily and creatively in complements. This phenomenon operates in the case of the highly modular PC, for example, with both hardware complementors and software complementors. (Gawer & Cusumano, 2002, p. 252)

The traditional approaches to marketing have also become irrelevant. Particularly McCarthy’s (1960) marketing mix. In terms of the 4Ps, only one of the four companies actually produces a product whilst the others deliver services. The place factor does not apply due to supply chain disintermediation. Only Apple sells hardware through retailers and Amazon ships physical goods but the move towards digital downloads and streaming of digital content has gathered enormous momentum impacting on the profits and survival of many traditional bricks and mortar businesses. Promotion is aimed at attracting “traffic” on to websites in the case of three out of four of the companies concerned, so conventional promotional mixes are not relevant particularly since all four companies are data rich in terms of customer and market intelligence. This removes the need to carry out traditional market research since customer data are captured through online purchasing and “cloud” applications. Pricing has also become more complex. Prices have to be set so as to encourage “traffic” on to websites and to stimulate buy-in from suppliers and complementors. This can sometimes mean providing free services or subsidised products. For example, searching and social networking are free but Google and Amazon make money from the advertising revenues generated by high levels of “traffic”. Meanwhile, Amazon is selling its new tablet at cost price based on a strategy to gain revenues from media content rather than hardware sales.

Moreover, the “Gang of Four” cannot be analysed by using a traditional one-sided business model. Although all four companies are consumer—oriented they interact with several groups of customers. Figure 1 is
an illustration of a traditional one-sided business:

![Figure 1. The traditional one-sided business.](image)

The “Gang of Four” is therefore classed as two-sided businesses or businesses that compete in multi-sided markets (Evans & SchmaLensee, 2007). This is illustrated in Figures 2 and 3.

![Figure 2. A two-sided catalyst business.](image)

According to Evans and SchmaLensee (2007), a catalyst is an entity that has two or more groups of customers who need each other in some way but who cannot capture value from their mutual attraction on their own and rely on the catalyst to facilitate value-creating reactions between them.

The “Gang of Four” can also be viewed as infomediaries who facilitate commercial relationships between buyers and sellers such as “traffic”, advertisers, customers, and third party complementors etc.

**Future Strategic Approaches**

Kim and Mauborgne (2005) recommended the pursuit of blue ocean strategies to escape the highly contested red oceans that typify western consumer markets. This is exactly what the “Gang of Four” has done by reconstructing market boundaries using the Internet as a core technology platform.

Simon (2011) went a stage further by saying “…they are winning because they are following an entirely new blueprint and business model. They have spent a great deal of time and money building extremely powerful and valuable ecosystems, partnerships, and communities”. This new model hinges on powerful ecosystems that, in turn, fuel astounding levels of innovation, profits, and growth. Without question, the “Gang of Four” has built the world’s most valuable and powerful business platforms. In so doing, these companies
have done nothing short of redefining business. Collectively, they have introduced the platform as the most important business model of the 21st century. And they have spawned a litany of imitators. Thousands of companies are:

- Building their own platforms;
- Creating valuable planks that complement existing platforms;
- Modifying their business models to incorporate platforms;
- Becoming platform partners.

Creating a robust platform does not just hinge on consistently developing great products or services. Rather, it requires a completely different mind-set. It must be at the core of a company’s business model (Simon, 2011). Finally, this approach is reaffirmed by Johnson (2010) who said that the most successful companies were those who created breakthrough business models through forays into “white space”—uncharted territory well beyond a company’s core business. This strategic approach is illustrated in Figure 4 defining the white space.

![Figure 4. Johnson’s (2010) white space.](image)

All four companies have adopted blue ocean strategies and undergone breakthrough business model innovation by exploiting “white space” on an ongoing basis. Apple was close to bankruptcy when Steve Jobs launched the iPod followed by iTunes, the iPhone, and the iPad. Amazon moved swiftly from being just an online book store to being a place where consumers could find anything on the web before moving media content into digital downloadable format and then introducing the Kindle e-reader and tablet computer. Google has developed a broad range of products to attract “traffic” including books, software, and browsers, Google Earth/Street View, Google Docs, G-mail and now Google+. Finally, Facebook has continued to add functions and features now including an online store.

**Conclusions**

This paper has analysed the significant growth of the Internet from its early beginnings as a peripheral driver of innovation to being a fully-fledged ecosystem in its own right. This ecosystem is currently dominated by four major technology titans worth approximately one trillion dollars and rising. Both Apple and Google have been ranked number 1 and 2 respectively in the Bloomberg-Business Week league table of “The 50 Most Innovative Companies” in the world with Amazon in sixth place and Facebook also in the top 50. These companies are having a highly disruptive impact on the business models of information and data-intensive industries such as home entertainment and publishing as well as computing, advertising, and
telecommunication.

This has created a need to reinvent management theories and approaches in the light of new technology platforms and ecosystems which are now blurring or redrawing traditional market boundaries as firms compete across industries. Although recent strategic approaches such as “blue ocean strategies” (Kim & Mauborgne, 2005) and “exploiting white space” (Johnson, 2010) have emerged, very few companies have adopted these methods. It is therefore imperative for the incumbent firms in industries that are threatened by the “Gang of Four” to adopt a satellite view (Walton et al., 2011) of their own ecosystem and reinvent their own business models to meet the challenges of the 21st century (Hamel & Prahalad, 1994). If they fail to do this then two existing business concepts may suddenly take on renewed relevance, namely, Schumpeter’s (1942) “gale of creative destruction” and Harrigan’s (1983) “end game strategies”.

References


A Conceptual Approach for Cannibalism Between Goods*

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The launching of a new product is an essential strategy for the survival and success of a company. However, in certain cases, it can reduce the results obtained by other products of the same company. This fact is named “cannibalism”. Following by a review of the literature on cannibalism between goods, this paper outlines a conceptual approach, showing the way it happens, its impacts, and the possibility of its uses as a marketing tool. A new product should, wherever possible, be carefully designed to avoid cannibalizing old products, unless this process is carefully planned. Concludes that creating and launching of new products are critical to companies who want to stand out next to their markets and need to survive over time. A lot of new products launched each year, coupled with the fact that most are line extensions already worked by companies, so we assume that the occurrence of cannibalism is common, or that a significant amount of resources are designed to prevent or dilute it. There is a high probability of transfer of results obtained by established products to new products, since similarity between them.

Keywords: cannibalism, new products, marketing, innovation

Introduction

Among the business strategies of competitive, organizations can highlight the continued development and launch of new products, which occurs by the need to replace a product that no longer provides important benefits to your target audience and the company. Organizations therefore need a continuous flow of development and introduction of new products in markets where they choose to act.

According to Clancy and Shulman (1993), in the area of consumer packaged goods the failure rate of new products is estimated at about 80%, and most of these are composed of line extensions.

Kotler (1998), Semenik and Bamossy (1995), Ries and Trout (2000), and Boone and Kurtz (2009), when claiming the extensions of product line or introducing new products, warning about the risks of cannibalism,

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and competitive dysfunction risk (Yamamoto, Scarpi, & Laruccia, 2011). Although they believe that cannibalism is an occurrence that can divert business from achieving its goals, therefore, considered a problem that must be controlled, few discuss the causes, consequences, or your dealings with marketing variables. Thus, this study proposes to meet cannibalism among products.

In marketing, cannibalization is the result of the introduction of a new product that will take the market share of an existing product from the same manufacturer/brand. Many disagree with the strategy claiming that diverts the focus of goals, others believe that if were well-planned can lengthen the life cycle for many brands. There are two reasons why the practice of cannibalization: staying ahead of the competition by launching new products/services and prevent the decline in sales. Quoting a bad example of market perception, we have the Kodak that took too long to enter the digital camera market leaving space for competition. The cannibalization strategy is in essence seeking increased sales and creating new business models that can compete with the market constant changes.

**Cannibalism in Marketing**

A product line is very small, it can increase profits by adding an item to it, and very large it can increase profits by removing items. That is, there would be no reason to keep products that bring harm or do not contribute significantly to the company’s profits. However, this financial approach excludes other important goals of marketing: customer satisfaction, image, market share, leverage other products, customer loyalty etc. (Kotler, 1998).

Cannibalization of products is the process by which a new product gets a share of sales by deviating an existing product. Kerin, Harvey, and Rothe (1978) described the following definition: “while product line extension or repositioning strategies posing minimal risks of failure for product being introduced, potential negative effects on existing products serving existing markets must be considered. These effects can called product cannibalism”. A similar definition is stated by Traylor (1986): cannibalism occurs when sales of a product from a company reduce sales of other. Traylor notes that cannibalism is a problem faced primarily by companies that use multi-brand strategies, since the risk of cannibalism increases as they seek better definitions of new market segments. Therefore, the excessive division of a given market decreases the differences between segments, contributing to the process of cannibalization, since products targeted to a particular segment can attract the public of another segment. However, one can also believe that other brand strategies can contribute to the occurrence of cannibalism, depending on the product and target audiences to whom it is directed and does not seem therefore that the brand policy alone is capable of causing or preventing their occurrences.

Copulsky (1976) stated the “cannibalism result from too close identification of a new product with the launching company’s older products and established markets. New appeals to new market segments will avoid eating one’s own market share”. Heskett in Kerin et al. (1978) has been defined cannibalization as “the process by which a new product gains a portion of its sales by diverting them from an existing product”.

There are, according to Traylor (1986), two ways to understand cannibalism: with vision focused on the product when a company offers two or more similar products, and market-oriented view, when two or more products of a company competing in the same segment. Kerin et al. (1978) remembered that sales of a new product were coming from sources like new customers, consumers of similar products of competitors and
consumers of products like the company itself. We can observe that the last of these sources is who triggers cannibalism.

Thus, cannibalism may be understood as an appropriation that a new product is part or all of sales, the sales volume (quantity) of market share, the profits, the spaces intended for distribution channels and/or customer loyalty that normally occur to one or more existing products from the same company (Oliveira, 2000, p. 5). It can be observed cannibalism and its different forms of existence in the four models listed in Figure 1. For a proper understanding of the figures, it should be understood by the competing product sum of the products of competitors targeting the same market segment, and the old products, the products targeted at this segment, belonging to the company that is introducing the new product. The circles represent the sales of products (without scale, just to clarify the ideas described) and the intersections between competing products—new and old should be understood as part of business performance for both floating, i.e., one that also affected of promotional tools, typically reaching consumers who have little loyalty towards a brand or company (Traylor, 1986).

**Models of Marketing Cannibalism**

The product line extensions and brand strategies are widely used by companies when launching new products, mostly because of synergy, economies obtained in relation to the establishment of an innovative product and the difficulties in its development, due to the high competitiveness in different markets.

Among the organizations, competitive business strategies focused on growth and survival, we can highlight the continued development and launch of new products that occur both by the need to replace a product that no longer provides important benefits to your target audiences and the companies, as by the need to extend or to create new product lines and brands because of the perception of a market opportunity that enables to achieve increased revenue, profits, profitability, market share, space at the points of sales or customer loyalty. The new product can arise to compose a line already worked for the company as well as part of a new product line. Below is cannibalization models, to thereby better understanding of the impacts associated with each of the model.

The model 1 (see Figure 1) shows a new product introduced by the company that have an old product with an equivalent position. Old product sales cannibalize in the same extent that increase the new product. It is the most dangerous form of cannibalism, because there are no increases in sales, but can be tolerated if the new product is more profitable than the old one.

Model 2 shows cannibalism with less intensity than the one shown in Figure 1, because the new product cannibalize part of the old product (which may be greater or lesser degree) and creates an expanding market where the company operates. This expansion of the market, despite the occurrence of cannibalism, can occur by different attributes that the new product features and by position strategies differently than the old product of the same company.

A third choice of cannibalism, shown in model 3 (see Figure 1) is the occurrence in one part of the old product and a part of a competing product (from another company) also creates a market expansion. It is a situation of greater risk than before, considering that the new product can experience a counterattack from the competition.

In model 4 (see Figure 1), we can see other cannibalism possibility that acts on the company that owns the new product and in competition, with no expansion of the consumer market, presenting, therefore, as a situation...
of greater risk the last one.

Currently, presumed private label brands account for a significant share of sales of retailers, particularly in the area of food. The growth in size and share of own brands can stimulate the development of cannibalism among products, as these produced by industries that have other products on the market with brands of their property and that, attracted by the opportunity to optimize their resources, propose to produce goods exclusively for certain retailers. Once producers do not normally perform the management of these products, but the retailers for which they offer can cannibalize the products cannibalized by this private label and vice versa, this phenomenon is called “indirect cannibalism”.

A second form of indirect cannibalism, but that does not include other companies, is one that occurs with a company’s products, as new products developed by a company, we believe there is cannibalism of time and attention of salespeople, managers’ products, production and distribution, which can be called pre-cannibalism or institutional cannibalism. In some cases, production can be cannibalized, considering the possibility of a single plant to create different product items.

Model 1. New product introduced by the company that had an old product

Model 2. Cannibalism with less intensity

Model 3. Cannibalism in one part

Model 4. Cannibalism on the company

Figure 1. Models of cannibalism. Source: Adapted from Traylor (1986).

Management Marketing Cannibalism

To prevent the occurrence of cannibalism is to introduce different products to well-defined market segments (Traylor, 1986; Copulsky, 1976). Kein et al. (1978) identified that it was quite common in organizations that can cause cannibalism without benefits. These instances related to top management decisions or the management practices of their products that include: (1) strong top management pressure for growth from new products; (2)
anxiety with developing a complete line of products in an effort to gain increases in the overall market share, in a product class; (3) inadequate positioning of new products; (4) not realistic or excessive market segmentation resulting in segments that demands similar product attributes or end-user needs; and (5) destructive promotional efforts reflected in sales representatives’ overemphasis on new brands and neglect of exiting products.

Depending on the strategies and objectives developed by the company to introduce a new product on the market, may be brought in three different strategies that provide no cannibalism: (1) attacking the competition without market expansion; (2) expanding the market to competition with attack; and (3) expanding the market to competition without attack (see Figure 2).

![Figure 2. Models of cannibalism strategy. Source: Adapted from Traylor (1986).](image)

Cannibalism sometimes can develop a new business model, as the case of newspapers trying to charge for reading the contents on tablets and smartphones (Model 1, Strategy 1 and 2). Instead of newspaper consolidation described by Sedgwick (1928) as process Malthusianism with an operation that suppresses some newspapers and in order to have better chances to survival. Álvares (2012) reminded that the New York Times had about 500,000 subscribers who pay for any of the three types of digital packages offered $20 per month on average. Charging for digital contents, implemented last year, should have occurred before. The amount of 40% of the newspaper audiences would be willing to pay for something. A year after the recovery, the New York Times digital subscription model proved to be innovative. But he warned that the changes in the model may not involve the abandonment of the basic premises of good journalism. On the other hand, the Indian Raju Narisetti, Digital Network managing editor of The Wall Street Journal defended the pay wall system in a way that does not cannibalize the print newspaper (Manzano, 2012). In Brazil, the newspapers are developing new products, as the “Globo a Mais” with Globo content exclusive to iPad was released reading calmly typical newspaper, accompanied by a multimedia journalism. Other journal develops strategies such as the creation Information
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Technology (IT) team exclusive for digital content in “Zero Hora” newspaper.

Otherwise to reflection, Flavián and Gurrea (2007) confirmed that readers motivated by aspects related essentially to differential attributes of the internet versus traditional channels perceive them both as information conduits and not as substitutive products. Meanwhile, motivations that could be satisfied through both channels positively affect the level of perceived substitutability between digital and traditional newspapers. Nevertheless, readers prefer reading a newspaper in the physical medium, for entertainment.

According to Merunka (2010), in a sales environment, cannibalism refers to the extent to which sales of one product arise at the expense of other products from the similar brand or sold by the same company. Margins and sales generated through new-product introductions may not result in increased whole sales or revenues if these new products cannibalize existing products. Yet, the concepts of cannibalism should be extended to company’s current investments and capabilities, including their willingness to cannibalize, which refers to the firm’s disposition to cannibalize its prior investments and current organizational know-how beyond the sales of its current products. Willingness to cannibalize pushes radical product innovation, which implies that the cannibalization of current products and technologies may be a desirable strategy that favors radical innovations and new-product introductions and determines firm’s long-term success in the marketplace like some newspaper companies. The concept of cannibalism thus is important for brand management and innovation management, as well as for channel management.

Final Considerations

Creating and launching of new products are critical to companies who want to stand out next to their markets and need to survive over time. A lot of new products launched each year, coupled with the fact that most are line extensions already worked by companies, so we assume that the occurrence of cannibalism is common, or that a significant amount of resources are designed to prevent or dilute it. There is a high probability of transfer of results obtained by established products to new products, since similarities between them.

This conceptual study can better understand cannibalism, which may be either a question or dysfunction that contributes negatively to the company—to narrow the results to negatively impact on the optimization of resources used—or contribute to a solution or alternative strategy to achieve objectives. A new product should, wherever possible, be carefully designed to avoid cannibalizing older products, unless this process is carefully planned. It is recommended that further studies should be applied to products and services in order to test the cannibalism models and strategies.

References


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Employer Branding Management As A Strategic and Organizational Control Tool

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The issue of employer branding has always had an intrinsic interdisciplinary content, since it builds a bridge for cross-fertilization between different disciplines (strategic marketing, strategic management, and human resources management). This paper presents employer branding as an approach based on effective strategic organizational resources and a precise employer branding management process. In this paper, the target is to define a possible frame in order to interpret employer branding techniques as control and regulation mechanisms. Control in organizations has long been a topic of interest for researchers and practitioners, alike who generally recognize that control mechanisms are needed to ensure that organizations may achieve their goals. It has been carried out a field work on the Italian Aeronautical Meta district, that generates annual revenues equal to EUR 8.7 billion and employees 36,300 people, of whom approximately 10% are employed in the space sector. Through this field work, the intention aim is to understand if and how employer branding may create, enforce, and set up internal and shared meaning and values. In particular, stemming from the empirical research’s evidences, this paper tries to conceptualize employer branding as a factor to persuade and influence the way that organizational actors enact in a socially constructed context. In this effort, the aim is to understand how managers may affect meanings, values, goals, and opinions through an effective action on employer branding that can play a crucial role in affecting sense-making processes, meanings, interpretations of the symbolic environment. The paper therefore opens up to new horizons, since it embraces a new application for employer branding, considering it as a modern control system and proposing an innovative approach in managerial control, founded on organizational identity as a key concept in an organizational citizenship’s perspective.

Keywords: employer branding, organizational control, strategic control

Introduction

This paper tries to analyze employer branding management as a tool of control, both in strategic and organizational terms. The theme of employer branding has always had an intrinsic interdisciplinary content,
since it builds a bridge between the studies of strategic marketing and management and that of human resources management and organizational behaviour. In an era, when brand per se seems to have lost its power and meaning, serious and concrete branding strategies that are just the top of an iceberg of firm’s investments on high quality services/products and talented human resources, on the contrary, show to be even possible source of strategic competitive advantage (Della Corte, Mangia, 2010; Della Corte, Mangia, Micera, & Zamparelli, 2011).

Employer branding is therefore an approach that based on effective strategic organizational resources and a precise employer branding management process, that seems to be double faced: towards the external environment (both on products/services and on job markets) as well as inside the organization (in order to improve human resources involvement, efficiency, creativity, motivation, and retention). For the first aspect, marketing strategies and external reputation can be important resources; for the second aspect, organizational behaviour theories are able to analyze and show how employer branding management can push the whole personnel of the organization, at all levels, to be part of the firm’s identity and building control on intangible factors according to which a sort of self-control process can come out. This issue, of extreme interest, shows evident gaps in the literature and this is the reason why this paper tries to investigate this topic in the paper. This has led to choose, as the following research hypotheses:

Hp1: There is a clear positioning of employer brand management between internal marketing and organizational behaviour.

Hp 2: Employer branding management can therefore be considered as a tool of control, both strategic and organizational.

The answer to the first research hypothesis has been given through the literature analysis and the theoretical proposal. For the second, a survey on leader firms in the aerospace sector in Italy has been done. The structure of the paper includes a literature review, which is indirectly referred to the issue, a theoretical model is therefore proposed and tested on a sample of firms in the aerospace industry, which seems to be very employer-branding oriented.

**Literature Review**

Considering the aims of the current research, literature review seeks to explore a different employer branding approach: a soft form of control. In this direction, the analysis points on externally spread and internally perceived identity. In turn, employees become guardians of their behaviour in line with the company’s culture because they are totally integrated in employer branding identity in their hearts and minds. Through employer branding, employees turn into “true believers” and advocates of the brand. Thus, identity becomes a pivotal issue that bridges both marketing and organizational behaviour components of employer branding. In fact, as stated in other past works (Della Corte & Mangia, 2010; Della Corte et al., 2011), employer branding was found in two research fields: marketing and organizational science. Employer branding can be viewed as a holistic process in which the organization develops its employees’ positive attitude and commitment with the organization (Kimpakorn & Tocquer, 2009). In spite of this holistic perspective, literature has defined employer branding from different perspectives (Ambler & Barrow, 1996; Ewing, Pitt, de Bussy, & Berthon, 2002), considering its functional and theoretical foundations (Backhaus & Tikoo, 2004) and examining attributes and positioning (Berthon, Ewing, & Hah, 2005). In this direction, the employer branding studies derive directly
from brand reflecting the same notions. More specifically, with “employer branding”, the literature indicates the firm’s capability of differentiation as an employer from competitors. Hence, the employer brand highlights the unique aspects of the firm’s employment placement or environment (Backhaus, Tikoo, 2004). In this direction, scholars identify the employment experience as the “employment offering”, implying that this experience is offered to current and potential employees. This offering consists of a promise, advertised during recruitment and kept in order to retain best people. This promise has specific connotations in the identity. In fact, employer branding, according to G. Martin, R. Martin, Kneafsey, and Sloman (2009), could be defined as the application of marketing, communications and branding concepts to promises of an employment experience that make an organization distinctive and appealing to new and existing employees, and ensuring that all employees identify and engage with the organization, its corporate brand, mission, values, and beliefs and thrive with it.

Identity has two fold reflexes and targets: identity of the brand towards external targets and organizational identity with strong internal implication.

The logic connection between “brand” as distinctive of consumer goods and service and “brand” applied to HRM is in the concept of identity. Brand identity is the unique set of brand associations that establishes a relationship with the target (Aaker, 2001). These associations generate value via functional, emotional or self-expression benefits. It is the unique set of brand associations, which represents what the brand stands for and promises to customers. Brand identity concept serves to highlight the fact that, with time, brands do ultimately gain their independence and their own meaning, even despite the fact that they may start out as mere product names. Brands characterize their own area of competence, potential, and authentic, but they are just a communication tool. One cannot expect a brand to be anything other than itself.

Aaker (1996) argued that the brand identity structure comprises a core identity and an extended identity that surrounds the first. The core identity is almost certainly remaining constant as the brand enters new markets and products. The extended brand identity consists of brand identity elements, structured into consistent and meaningful categories, which provide texture and wholeness. Brand core identity defines what must remain and what may be changed. Brand identity influences and is influenced by corporate reputation as employer, in employer branding field. So that reputation represents the conjunction between the external and internal features of identity.

In previous works (Martin, 2009a), employer branding is considered as a key role concerned with corporate reputations. Cable and Turban (2003) have further highlighted the importance of company reputation in increasing the likelihood of potential applicants for a job at the organization. This study helps to understand why, in the employer branding programs, carefully planning an extensive campaign in order to increase the chances of potential recruits wanting to apply results necessary. Moreover, the two scholars have identified two key factors that predict positive job seeker reputation perceptions: the degree of familiarity with the organization and external ratings of the corporate reputation. Cable and Turban have also investigated whether the degree to which organizations advertised aspects of its reputation and HR philosophies on job postings can predict employee reputation perceptions, perhaps surprisingly they have found no significant link. The more talented employees find positive aspects in corporate reputation, the more they are likely to identify with the organization, and the more they will seek membership with it in order to share the image that membership promises (Backhaus & Tikoo, 2004).
Moreover, Martin (2009a) defined corporate reputation in terms of reconciling organizational needs through corporate branding and socially legitimacy through the exercise of more effective leadership, good governance, and corporate social responsibility (Deephouse & Carter, 2005; Martin & Hetrick, 2006, 2009; Martin, 2009b; Martin & McGoldrick, 2008). Thus, following Sparrow and Balain (2009), for those who are already employed, employer branding aims at helping existing talent to identify and engage with it (CIPD, 2009; Martin & Beaumont, 2003; Martin & Hetrick, 2006; Martin, 2009b). In this direction, identity represents a tool of self-control in employer branding perspective, thus confirming the first hypothesis, for two main reasons: first, external reputation is necessary to attract talents on the job market; and secondly the human resources’ retention requires the above explained efforts in terms of internal image, culture, and shared values.

The identity is confirmed as a fundamental asset also by Dell and Ainspan (2001), that asses “the employer brand establishes the identity of the firm as an employer. It encompasses the firm’s value system, policies, and behaviours toward the objectives of attracting, motivating, and retaining the firm’s current and potential employees”. This definition indicates that employer branding involves promotion activities, both within and outside the firm, in order to make a firm different from competitors and desirable as an employer. Moreover, Baumann (2007) argued that employees’ identity and identification were potential sources of strategic value creation and support for business model transformation. Employer branding aims at creating positive but authentic statements of an organization able to shape the behaviour of groups of employees, leaders, and line managers around a specific message or value propositions (Hodge & Martin, 2009; Martin, 2009b; Sparrow & Balain, 2009). Thus, identity management at all levels of an organization represents the core of employer branding.

Further, the identity contributes to workers identification with the firm (Dutton, Dukerich, & Harquail, 1994) and organizational commitment (Crewson, 1997). In this direction, organizational identity provides the context within which members interpret and assign profound meaning to surface-level behaviour (Branninge & Northqvist, 2004). Thus, Hatch and Schultz (2004) posited that organizational identity acts as a sense—making guide in an organization. Organizational identification could be defined as individuals’ cognitive perception of oneness with or belongingness to an organization (Ashforth & Mael, 1989). Gioia, Shultz, and Corley (2000) emphasized the organizational identity as “collective understandings of the features presumed to be central and relatively permanent, and that distinguish the organization from other configurations”. In their views, the focal point is in the shared interpretation of identity that may or may not correspond to official narrative (Ashforth & Mael, 1996).

According to Fiol (Whetten & Godfrey, 1998), the accent is on the social dimension of the organization identity, in fact, “meanings and meaning structures are negotiated among organizational members”. This becomes a self-categorization that is the core of organizational identification. An employee indentified in an organization will be more self controlled and in line with the values and the objectives of the firm. These concepts are strongly tied with organizational citizenship behaviours (Sartain & Schumann, 2006).

The conization of the terms is due to Organ and his colleagues (Bateman & Organ, 1983; Smith, Organ, & Near, 1983), who start from Barnard’s concept (Barnard, 1938) of the “willingness to cooperate”, and Katz’s (Katz, 1964; Katz & Kahn, 1966, 1978) distinction between dependable role performance and “innovative and spontaneous behaviours”. The definition makes a clear connection with other related management domains, such as human resources management, labour relations, and strategic management. About the theme of the current research, the cross-field of interest is in the organizational behaviour in order to define the fundamental
traits applicable in the employer branding strategy. Particularly, group cohesiveness is found to be significantly and positively related to employees—employer and employees—employees relationship through the main features of organizational citizenship (Podsakoff et al., 2000, Podsakoff et al., 1996b; Podsakoff et al., 1990), that are:

- Helping behavior: the concept refers to voluntarily helping others with, or preventing the occurrence of work—related problems (Borman & Motowidlo, 1993, 1997; George & Brief, 1992; George & Jones, 1997; Graham, 1989; Organ, 1988, 1990a, 1990b; Smith, Organ, & Near, 1983; Van Scotter & Motowidlo, 1996; Williams & Anderson, 1991);

- Sportmanship: the concept refers to a positive attitude developed even when things do not go their way. It is an attitude that allows employees to sacrifice their personal interest for the good of the work group (Podsakoff et al., 1997; Podsakoff & MacKenzie, 1994; Walz & Niehoff, 1996);

- Organizational loyalty: this behaviour makes the employees as organizational “groupies” who promote, protect, and defending the organization against external threats, remaining committed to it even under adverse conditions (Graham, 1989, 1991; George & Brief, 1992; George & Jones, 1997);

- Organizational compliance: the concept refers to a person’s internalization and acceptance of the organization’s rules and procedures, scrupulously adhering to them. In extreme situations this means complete and religious obedience to all rules and regulations, even when no one is watching (Smith et al., 1983; Van Scotter & Motowidlo, 1996; Borman & Motowidlo, 1993);

- Individual initiative: this behaviour smooths over the previous one. It involves engaging in task-related behaviours that goes “above and beyond” the call of duty, leveraging on personal creativity (Podsakoff et al., 1997; Organ, 1988; Graham, 1989; Moorman & Blakely, 1995; George & Brief, 1992; George & Jones, 1997);

- Civic virtue: it represents a macro-level commitment to the whole organization. This refers to an active behaviour of employees, even at great personal cost. These is the maximum expression of organizational membership (Graham, 1991; Organ, 1988, 1990b);

- Self development: it could be identified as oneself development in an environment of membership (Katz, 1964; George & Brief, 1992).

In summary, despite a lack in literature of correlation between employer branding and organizational citizenship behaviour, job attitudes, task variables, and various types of leadership appear to be more strongly related to the former than the other streams of research.

Moreover, all the above mentioned organizational citizenship behaviour factors aim at creating and developing the basis for psychological contracting and high self-management approach. The theme of psychological contract can link to the understanding of employer branding, following the arguments presented by Rousseau in explaining variations in the psychological contract content. Rousseau (1990) made a distinction between relational and transactional psychological contracts. Transactional content involves more directly quid pro quo exchange features. These exchange aspects are more based on economic exchanges, and they differ from socio-emotional oriented relational psychological contract content, where the provision of subjective perceptions of trust and fairness are central. Some authors explicitly refer to Rousseau’s distinction which separates explicit tangible exchange based aspect of the psychological contract from more trust or socio-emotional based aspects of the psychological contract and apply this framework to the notion of employer branding.
The complexities of an employment offering or employment experience associated with a particular employment brand can be considered as the transaction key. Quid pro quo exchange is based on features such as pay for performance as well as important socio-emotional/cultural features that help make up a particular distinctive employment brand. Martin and Hetrick (2006) also discussed a third type of psychological contract that can be applied to the idea of employer branding, which involves ideological currency. Martin and Hetrick (2006) argued that aside from the economic and socio-emotional aspects of the psychological contract, its content can involve expectations that the organization was acting for some ideological purpose in accordance with a particular set of values and principles. Their arguments are also linked to Blau’s (1964) work, who suggests that the fulfillment employees may get from working toward a particular ideological goal can act as a reward.

This is particularly useful in the context of employer branding as people may wish to work for a distinctive company that has particular values or principles if they share these principles. In this direction, Backhaus and Tikoo (2004) argued that employer branding contributes to the formation of a psychological contract and the accuracy of the information portrayed in employer branding will therefore influence perceptions of psychological contract fulfillment. Martin et al. (2008), Backhaus and Tikoo (2004), Martin and Hetrick (2006), and Miles and Mangold (2005) have identified a strong connection between corporate reputation, psychological contract, and employer branding. In fact, their merit in the employer branding literature progress is that they founded theoretically a proactive organizational management of corporate reputations whose perceptions by employee’s impact upon the formation and development of their psychological contract. Among the others, Cravens and Goad Oliver (2006) target an important issue claiming that this theoretical bridging could be a channel for competitive advantage.

Conceptually, this helps to establish a link between personnel investment and business performance in order to measure and manage individual performance against goals. This concept has its roots in the finance literature of upper and lower value bounds on cash flows (Cochrane & Saa-Requejo, 2000; Cochrane, 2001), but has been further developed by HRM. In this direction, starting from Schmit and Allscheid (1995), it is possible to state that that employees’ overall climate (that constitutes the before mentioned organizational control) affects service intentions, “which was related to customer service” (Barney & Wright, 1997). So this measurement impacts both on financial returns and customer satisfaction and retention.

1 “Combined, these intangible assets constitute a powerful and unique tool capable of creating sustainable competitive advantage” (Cravens & Goad Oliver, 2006).
Thus, a connection with balanced score card appears clear. Employee engagement in balanced scorecards is enabled by making obvious linkages between internal (such as retention, turnover, and satisfaction) and external metrics (quality defects, cycle time, productivity, and gross margin). This visibility builds employee awareness of the role that they play in the corporation’s or initiative’s success. It expands morale and passion for continual improvement towards a customer-centric culture in the quest for maximum employee contribution to the organization’s goals.

Research Gaps, Hypotheses and Theoretical Implications

As underlined in the previous paragraphs, employer branding is a very debated and discussed topic that however requires a serious managerial approach, both in its strategic, marketing, and organizational implications. The literature seems to confirm the first research hypothesis and opens up a way to verify the concrete applicability of employer branding management to strategic and organizational control through the view of organizational citizenship.

It is also in fact that an interdisciplinary issue does not just aim at attracting potential employees but also significantly aim at retaining the most talented ones within the organization, through intangible and innovative tools.

In order to answer the second research question, it has been considered necessary to build a theoretical framework which, on the basis of the literature analysis, has shown how and when it is possible to adopt EBM as a mean of control. The model that figures out after a long literature analysis is outlined in the following figure that tries to clarify some theoretical preliminary step which is necessary to get to the issue. Employer branding cannot just be considered per se—it has to be analyzed and adopted in terms of employer brand management (see Figure 1).

Employer Brand Management (EBM) has relevant implications in two main areas of the firm: strategy and external marketing on one side and internal marketing and organizational behaviour on the other side. The first area regards mainly firm’s capacity of concerning a positive external reputation (corporate brand before
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employer brand) that is based on corporate identity, that the whole of values, approaches, and culture that prevail in a certain organization. In terms of external reputation, employer branding allows to attract more talented applicants on the job market and, if correctly managed, can even reinforce corporate brand, in the overall brand management complex system of a firm (Sullivan et al., 2002).

From this point of view, some authors (Moroko & Uneles, 2005) underline the deep link between employer branding and corporate brand, pointing out some specific features that can be found both in corporate brand theory and practice. As reported by Della Corte et al. (2011), these aspects are:

- being known and notorious: very well known and notorious companies are much appreciated by current and prospective employees as workplaces;
- being relevant and resonant: for employers that practice employer branding, current and potential employees are to be considered as “consumers” to attract, through distinct value propositions (bundle of benefits) (Ambler & Barrow, 1996; Micheals, Handfield, & Akerold, 2001). Successful employer brands are characterized by having a value proposition that is relevant to and resonant both for their potential and current employees;
- being more competitive than competitors as employer brands: a differentiated employer brand is often seen as the key in winning the “war for talents”, in function of some specific aspects (functional, symbolic, and experiential) that will be further analyzed.

In fact, looking more specifically at human resources, corporate identity deeps its roots in organizational identity: only when people working in a certain firm feels and shares the same value and culture, that is firms’ real identity, there is a positive internal reputation that develops and that favours human resources’ working within the firm rather than changing (employees’ retention). This view leads to a process that can even imply both strategic and organizational control.

This aspect is strictly bound to a vision of EB (Della Corte & Mangia, 2010) according to which firms’ approach in employer branding management is characterized, with different intensity, both by functional and symbolic dimensions, that can be described as follows (Della Corte et al., 2011):

- functional aspects: the more tangible aspects of EB (i.e., incentives, compensation systems);
- symbolic aspects: the more intangible components of employer branding (i.e., relationship between employer and corporate brand, with reference to the firm’s image and reputation);
- experiential aspects: the experiential issue refers to the overall atmosphere, climate and culture that prevails in the organization and mainly to how it is lived and really experienced by the organization.

Therefore, in this optic an employer that practices employer branding and employer brand management tries to express corporate identity (Backhaus & Tikoo, 2004) through valuable propositions both to potential and actual employees (Sullivan et al., 2002), adequately and realistically expressed by the brand (Eisenberg et al., 2001). This concepts explain why EB is absolutely and interdisciplinary and transversal issue according to which employees are at the same time targets of EB Management, co-creators of firms’ life, values and culture and final “users” of organization behaviour (Settoon & Mossholder, 2002).

Thus in organizational terms, the vision of employer branding managing according to internal marketing perspective is based on the assumptions that the first market for a firm is made of its personnel: the internal customers are employees and their products are the jobs. So they have to be satisfied with their products,
otherwise they may decide to change product (job). At the same time, the firm has precisely chosen its target for its internal market and tries to satisfy them as co-actors of its activities (George & Gronroos, 1991; George, 1990; Gronroos, 2004; Ballantyne, 1997).

The fist market of a company is its personnel, so that employees are internal customers and jobs are internal products. Thus, internal marketing plays a fundamental role in the employer branding strategy: it is a planned effort using a marketing-like approach directed at motivating employees, for implementing and integrating organizational strategies towards customer orientation (Ahmed & Rafiq, 2003).

Moreover, the mission of internal marketing is that of managing the relationship between organization and employees, pointing to internal communication, knowledge sharing, and motivation, thus stimulating both employees’ sense of belonging and pushing them to contribute in firm’s identity and reputation constant improvement.

If therefore employees seem to be the most important internal stakeholders for a firm (Foster, Punjaisri, & Cheng, 2010), employer brand management becomes a relevant tool for employee retaining, since it makes the firm the positive workforce that had been promised in the recruiting phase (Frook, 2001) and makes employees feel themselves as part of organizational identity and therefore of organizational culture. And this is much true when firms operate in industries, like service, where the human touch is significant in delivered services to customers. This also explains why employer brand management is necessary: if the employee does not learn, share, and assimilates the main values of the firm, and if internal service is not of the expected quality level, then the service provided to the external client won’t be satisfactory (Heskett, 1987), creating a sort of intellectual and emotional engagement of the personnel with the brand (de Chernatony & Segal-Horn, 2003; Thomson, 2000). Thus, the goal of internal marketing becomes that of developing workforces able to be committed with organizational values and goals (Zamparelli, 2012; Bakhaus & Tikoo, 2004).

From this point of view, in resource-based perspective (Barney, 1991, 2001a, 2001b) employer brand management itself can even become possible source of sustainable competitive advantage (Della Corte et al., 2011), in a scheme where employees are active partners, since they have to believe and support the vision and self-actualizing it (Blumenthal, 2011).

This approach, that can maybe more easily applied to a big seized but simply organized company, can become more complex if it is the case of multinational or transnational firms, based on a multiracial and multicultural human resource endowment (Vallaster, 2004). In such situations, however, it can become even more strategic, if it expresses corporate brand values, favours both intellectual and emotional employees’ involvement (Thomson, 2000) and manages to refer to all organizational levels, even if in a different way and with different intensity (Mahner & Torres, 2007).

**EB As A Control Tool: Organizational Implications**

The investigation starts considering the main streams within organization studies—perspective literature on soft form of control, trying to point out the relevance of the EB as a mean of control, that it can be interpreted as the way managers can align employees capabilities with the organizations goals (Cyert & March, 1963;
Control in organizations has long been a topic of interest for researchers and practitioners alike, who generally recognize that control mechanisms are needed to ensure that organizations may achieve their goals (Kirsch, 1996; Mangia et al., 2008).

This preliminary consideration helps in making a fundamental distinction between formal and informal means of control.

Before considering informal and soft alternatives to managerial control, let’s argue that the traditional formal control reminds the idea of bureaucracy and implies a sort of calculative formulation, relying upon an economic view of organizations that has been enhanced through agency theory (Fama & Jensen, 1983).

Adopting a traditional perspective, following the bureaucratic authority, those higher up in the hierarchy set up the standards to measure the effectiveness of workers. In this perspective, the main aim is to make workers accountable and minimize costs, control errors, and regulate behaviours. Jensen (1996) argues that “making the internal control systems of corporations work is the major challenge that economists and management scholars are facing” is, perhaps more than ever, crucial to understand the real evolution of management science in the 2010s.

Lindkvist, Soderlund, and Tell (1998) stated that the frequent adoption of “tests and other similar forms of formal control mechanisms can create a sense of shared responsibility for vital sub-parts of the system and encouraged interfunctional dialogue and compromise”.

There is a direct relationship between the degree of formalization and of standardization and the extent of application of formal control mechanisms (Walton, 2005).

On the contrary, unlike formal control systems, which monitor the behaviour adopting explicit and formal measures, informal typologies of control use different tools and means (Falkenberg & Herremans, 1995): (1) values; (2) beliefs; and (3) unwritten traditions.

It is possible to quote B. K. Snavely and W. B. Snavely (1990) who argued “informal types of control coordinate employee behavior through interpersonal, social and/or cultural influence methods… “, emphasizing how “work group norms are based on shared values and beliefs among peers and learned through socialization”.

In the same way, for Ouchi (1980), an informal control system is composed of shared beliefs, values, moral standards, and traditions that influence the behaviour of employees. In this perspective, it is possible to refer to the theoretical considerations carried out by Courpasson (2006) who analyzed the concept of “soft form of constraints” within the neo-liberal world’s organizations.

The main point is the possibility to introduce “new methods of work and the perception from people to have a greater autonomy on the workplace” (Torlado, 2011). In this way, this paper has been considered the role played by EB in achieving a sort of homogenization between the individual stakes and the organization ones. As observed by Heelas (2002), work is increasingly conceived as an activity which ought to give the opportunity to explore the inward self. In this perspective, the possibility to use a clear EB may be a useful tool to “help” the workers in exploring their inward self. The main theoretical issue raised by this interpretation of EB may be related to the theme of the “management of authenticity”, investigated by some authors in the last few years (Fleming & Sturdy, 2009; Fleming, 2009; Pedersen, 2011). In our opinion, the appearance of the
“real self” could be related to the expression of the main characteristics of the EB. Hence, the possibility to “be yourself” and to “change yourself” has spread across some organizational contexts, echoed the claim to free individuals and let them be more attached to their work.

In the light of the constraints against formal control conditions under bureaucracy, there has been a flourishing stream of contributions focused on the area of informal and soft controls: implying or control through culture, norms, and trust rather than through hard direction (Grey & Garsten, 2001).

In particular, this investigation focused on the relationship between EB, employees’ behavior, and forms of control, it is possible to shed a light on the concept of corporate culture, that as stated by Raelin, has been proposed to be especially useful in order to influence workforce on “achieving high levels of productivity because it links workers to a common set of core values, beliefs, and assumptions” (Denison, 1984; Lim, 1995; Ouchi, 1981; Peters & Waterman, 1982).

As shown in the following sections, the use of a particular EB can be deeply impact on the corporate culture and values.

Lebas and Weigenstein (1986) stated that the role of culture has becoming more and more crucial since control through market and rules have become increasingly less viable. The most relevant aspect is related to the fact that culture and EB may create a sort of shared identity and organic solidarity (Durkheim, 1933).

The reason why in this paper the analysis is focused on EB as a mean of control is related to the fact that is strictly related to the expression of sentiments, beliefs, and attitudes, exerting a sort of homogenization of desired values and norms which makes constant surveillance unnecessary (Pfeffer, 1981; Ray, 1986; Raelin, 2011).

A further aspect that will take into analysis refers to the organizational members’ receptiveness to the values, feelings, and characteristics of corporate culture. The real effectiveness of these soft control methodologies depends upon employees reactions (Alvesson & Willmott, 2002).

**Methodology and Empirical Results: The Guttman Scale and the Spearman Co-graduation Analysis**

In the empirical phase, following sampling criteria were adopted: (1) firms’ business activity; (2) company’s attractiveness (both on the final market and on the labour market); and (3) membership of the Italian aeronautical meta-district and of Federation of Italian Companies for Aerospace, Defence and Security (AIAD).

In this case, the target population is composed by a large number of companies in the aerospace industry located in the Italian regions (Campania, Lombardia, Piemonte, and Puglia) in the meta-district ($N = 562$). The first step of selection enables to focus on business excellence, given the business that offer technologically advanced and highly differentiated firms. According to those criteria, the interviewed firms (Finmeccanica, Alenia Aeronautica, Thales Alenia Space Italia, Avio, Telespazio, Cira Centro Italiano Ricerche Aerospaziali,  

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3 This paragraph is by Clelia Cascella.

4 The population, thus constituted, includes individual companies specialized in particular aspects of operations including aerospace and specialized units for the task of stamping and forming sheet metal parts, heat treatment of aluminium and steel, composite materials inspection and quality not destructive control tests, assemblies and installations, components and electronic systems and control, control the hardness and electrical conductivity, surface treatment and non-destructive testing, manufacture and installation of assemblies and subassemblies of aircraft, satellite remote sensing, satellite imagery interpretation, GIS, monitoring acceptance of raw materials and composites (Kevlar, Fiberglass, Epoxy Carbon, Aircraft Interiors, Electronics).
Galileo Avionica and Selex Sistemi Integrati) represent the universe of big organizations of aeronautical sector and each of them is representative of a network of suppliers\textsuperscript{5}.

The main objective of this study is verifying the existence of connection between the implementation of EB strategy in a long-run perspective and the firm control that can be considered, both in internal (organizational control) and external (strategic control) perspective.

The interviewed industries represent an excellence in the employer branding perspective. In fact, by analyzing the questionnaire, for the 40\% of the sample, the brand is a very important strategic resource and, for the 60\% of interviews, it is the focal point of business strategy (see Figure 2).

The perception of EB role (in the firms’ long-run strategy) is a key concept in the empirical phase of this research. In fact, the hypothesizes of this work are:

- Can the implementation of EB perspective in the firms’ long-run strategy contribute to redefine the corporate identity?
- If yes, can the EB become a tool of internal and external control?

For both, a different analysis was carried out. In particular, respect to the first one, the identity concept has been redefined according to EB perspective.

The identity concept is very complex and dynamic, it changes over time, and it is strongly influenced by a lot of different factors, such as the firm’s history/tradition, the management/equity values, but also by HR management behavior towards firms’ employers, the employers themselves, etc.. For investigating this aspect, a Guttman Scale has been proposed, where the items (i.e., the “steps” of the scale) are arranged according to a increasing intensity criteria. In other words, for “climbing the scale”, the interviewed subjects must have a major quantity of latent dimension (in this case, HR management behavior towards firms’ employers). In this term, an ideal continuum has been designed, along which it seems possible to arrange a set of indicators aimed at pointing out the “human oriented leadership”. This one is aimed at valorizing firm’s human capital, i.e., the latent dimension in the meaning above specified.

\textbf{Figure 2.} The perceived role of the brand in the interviewed firms’ strategy.

\textsuperscript{5} FWC sector competitiveness studies—competitiveness of the EU aerospace industry with focus on: aeronautics industry within the framework contract of sectoral competitiveness studies in December 2009.
In order to achieve this goal, a reliability analysis was carried out through Cronbach’s alpha (its value equal to +0.87 confirms the choice of indicators, underling their unidimensionality) and then three weighted indexes were constructed. Through them, those aspects were point out: (1) HR leaders’ perception about the strategic value of human resources; (2) the pursued HR leaders’ objective respect to EB strategy implementation; and (3) the EB implementation level in the firm strategy. Arranging the firms according to the owned quantity of property (in this case, the quantity of human oriented component in interviewed subjects’ leadership style), the Guttman scale has been constructed (see Table 1).

Table 1

<table>
<thead>
<tr>
<th>The Guttman Scale</th>
<th>The role (such as perceived by HR leaders) of human resources in the construction of corporate identity</th>
<th>the EB implementation level in the firm strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td>Firm 1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Firm 2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Firm 6</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Firm 3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Firm 7</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Firm 8</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Firm 4</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Firm 5</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Note. Source: The authors’ reworking.

Arranging the firms according to the owned quantity of property (in this case, the quantity of human oriented component in interviewed subjects’ leadership style), the Guttman scale becomes a perfect scale. Therefore, a leadership style typology can be individuated in the sample:

- (totally) Human oriented leadership style: The interviewed subjects work in a dynamic system aimed at valorising the human capital, where (1) inter-firms collaboration programs—aimed to improve EB strategies—have been activated; (2) evaluation system—aimed to control and verify the impact of EB strategies on employers’ performance—has been carried out; and (3) in the last three years, investments—aimed to improve the implementation of EB strategies—have been done (employer value position) etc.;

- Intermediate profile: This is the most complex profile. HR leaders declare of favouring the valorisation of human capital and declare of considering it as an important element of corporate identity. Nevertheless, there are not concrete EB activities in a long-run perspective (even thought, some activities are implemented, such as the construction of EB inspired website and some other things, but long-run perspective seems be absent);

- (no) Human oriented leadership style: The interviewed HR leaders do not track down a connection between the human capital and the definition of corporate identity. They do not work in a system where EB strategies are implemented, either in a long-run or in short-run perspective.

In the total research architecture, the carried out analysis is propaedeutic to the second part of the empirical phase. In fact, there is only once defined the leadership style typology in HR perspective, the possibility of considering EB as a tool of internal and external control becomes practicable. In this direction, the internal control is the developing faithful employers and the external control is the firm’s capability of attracting talents which are able to satisfy firm’s needs.
In order to achieve this goal, a Spearman co-gradation analysis was carried out, taking into account the EB activities realized by the firm and:

1. Employers’ performance level—internal control;
2. Firm’s attractiveness—external control.

First at all, connection between EB implemented activities/strategies and the three leadership styles individuated through the Guttman scale was investigated.

The squared Spearman coefficient has a variation field (-1; +1). It is null in absence of co-gradation, it is negative if there is an inverse relation between variables, and it is positive otherwise (see Table 2).

Table 2

<table>
<thead>
<tr>
<th>Leadership</th>
<th>Leadership totally human oriented</th>
<th>Intermediate profile</th>
<th>No human oriented leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal control</td>
<td>0.95</td>
<td>0.54</td>
<td>0.40</td>
</tr>
<tr>
<td>External control</td>
<td>0.80</td>
<td>0.66</td>
<td>0.64</td>
</tr>
</tbody>
</table>

Note: Source: Our elaboration.

EB is a tool of internal control, the EB activities and HR leadership styles strongly influence the internal employers’ performance. In order to investigated this aspect, it was disassembled into two parts: (1) the employers’ loyalty to their firm; and (2) the employers’ availability (such as perceived by HR leaders) to satisfy firm’s unexpected needs. In confirmation of this finding, there are the co-gradation indexes related to the second and the third leadership profiles: in fact, they are higher than the expected ones. Therefore, it is possible to observe and hypothesis that: (1) the aeronautical sector has a consolidate tradition. This could explain a higher imperviousness of this sector to the most recent strategic approach; and (2) there is a very small “sample” (even though it represents the real target population of this work) and this could be cause bias effect (so called social desirability). And, in our opinion, this effect exists in the analysis.

The employer brandings appears an important tool of external control. By comparing all co-gradation indexes, the second and the third styles are able to attract talents, but they are not able to guarantee the same employers’ performance level. So, this one is better in firms where a human oriented leadership is implemented. In the light of those considerations, the human oriented leadership becomes a strategic resource for firm, because it can guarantee a better agreement between the firms’ needs and the candidate profiles. Of course, this naturally constitutes the strategic presupposition to create a “pocket” of long-run competitive advantage.

Conclusions, Managerial Implications, and Hints for Further Research

In this paper, it has been interpreted the idea of EB not exclusively as a marketing mean, but rather as a sort of control and regulation mechanism, able to impact on value and managerial framing processes. In this sense, it has been understood EB as a tool to create, enforce, and set up internal and shared meaning and values. In particular, it has been conceptualized EB as a factor to persuade and influence the way organizational actors enact in a socially constructed context. In other words, managers may affect meanings, values, and shared opinions through an effective action on EB that can play a crucial role in affecting meanings and interpretations of the symbolic environment organizational members operate in.
The paper has in fact answered to a twofold objective. Firstly, it demonstrates that employer branding is the expression of employer branding management, and that it has relevant implications outside the firm as well as inside. This adds value to literature on the theme and confirms the necessarily interdisciplinary approach. A second very important research implication is that it opens up new horizons in the field of organizational control, inserting an innovative and unusual perspective, through the “organizational citizenship view”, thus building a relevant conceptual bridge between strategic and organizational control.

In this direction, there is a deep conviction which also represents a significant suggestion and possible tool for managers and practitioners in planning their firms’ control systems and human resources management, on a very critical issue like that of finding and attracting talented people and, most difficulty, to retain them. Of course this is the first research step in this direction, even if the interviewed firms seem to be very willing to apply it. A limit of the paper is that the research survey has been conducted on a very specific sample of a very specific industry, which reveals to be employer branding oriented. It requires to be verified in other contexts in order to see if compare the results and to verify the possible generalizations, and this is the challenge for our research’s prosecution.

References
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