Outcome of Biddings for British Target Companies by Periods and Economic Sectors - the Case of Cash-rich bidders -

حصيلة عروض الشركات البريطانية القابضة على المستهدفة حسب مراحل الزمن وعبر القطاعات الاقتصادية– حالة العارضين النقديين –

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Abstract: *A vital subject of mergers and acquisitions markets is the outcomes of offers (bids), which can be either successful or unsuccessful. In this study, particularly, 79 percent of bidding companies succeeded in their attempts to control target companies. However, the success percentages differ when some British economic sectors and periods of time are considered.*

We employed the Z-value and Chi-Square tests to compare some groups of proportions of offer outcomes in mergers and acquisitions of British public companies. Findings indicate that there are significant differences between proportions of offers outcomes across some economic sectors and periods of time, which suggests that managers should consider these differences when making strategic decisions or when bidding for target companies.

Keywords: Offer; Outcome; Cash; Periods; Industry.
Jel Classification Codes : G3; G34

Introduction

Merger (M) is any transaction that forms one economic unit from two or more previous units. Acquisition (A) is the purchase of a controlling interest in a firm, generally via a tender offer (bid).
Series of merger waves have been witnessed in many countries with open market economies. The most important waves occurred in the US and UK markets. Each wave had different motives. The nature of these waves also changed according to the type of deals, methods of payment and the behavior of involved companies which depicted over time various patterns.

Mergers and acquisitions (M&A) have been an important feature of the British industrial arena since the corporation became the dominant vehicle of business activity in the early twentieth century. Each company has individual goals that it hopes to achieve from M&A. Examples of common goals are financial synergy for lower cost of capital, improving company's performance, economies of scale, increasing market share and diversification of risks.

Several studies have investigated the subject of mergers and acquisitions. Researchers have aimed particularly at the motives for mergers, why do they occur in waves, their impact on the new entity and the economy.

The M&As activity over time presents trends, upwards or down wards, creating some specific merger waves. The relationship between merger waves and the economic conditions in the preceding periods was subject to several studies, however, the empirical evidence on why they occurred in waves is limited and with a little success. As the economic theory attempted to relate M&As activity to economic factors, there were many possible explanations.

Traut we in(1990) surveyed several theories of M&As and concluded that none of which could give a single explanation to merger motivation. Most of these explanations provide evidence on M&As activity over the last century, but their arguments appear to be more relevant only to the examined marketplace, in which they occurred. In this context, the economic disturbance theory (Gort, 1969),argues that mergers and acquisitions are more likely to occur in upswings, than in downturns, of the stock market prices depending on the economic conditions. Thus, the theory assumes that stockholders and managers base their current valuations of their company's stock on the recent past, but non-holders do not (Mueller, 1977), and these different opinions, result in increased levels of M&As activity.

Several finance text-books present the rising of the stock market as appositive sign of a country's economy. In parallel, this rise of the stock market facilitates companies' plans on M&As (by raising funds through the issue of new shares, etc...). If these two elements are paired, the result is increased level of mergers and acquisitions activity (Steiner,1975).

Another important view that determines the level of M&As activity, which is consistent with a cyclical merger pattern, is the managerial theory. During upswings in the stock market, corporate profits and cash flows rise. Then, if there is no opportunity for growth via internal expansion, higher dividend payments or growth via external expansion (M&As) are the best alternatives. For this reason, it is not surprising that many companies make their bids during periods of prosperity (Salter&Weinlold,1978).

Mitchell and Mulherin (1996) examined the reasons why mergers occur in waves, and why within a wave they strongly cluster by industry. They argue that there are considerable differences between levels of M&As activity in different industries due to shocks to the industry(changes in the economic and regulatory conditions).The authors found that the shocks were a proxy of abnormal sales growth, were significantly associated with M&As activity, and deregulation was found as themostpronouncedshockforindustryconsolidation.Theyclaimedthatindustriestendtoberestructuredan dconsolidatedin concentrated periods of time which are hard to be predicted.

Some studies confirm that M&As activity is partially influenced by its impact on management compensations and rewards. Datta et al. (2001) found lower bid premiums and a more aligned strategy with shareholder wealth, as executives' compensation was heavily weighted by stock options granted.

In the last decade, researchers have been studying several aspects of mergers and acquisitions and, perhaps, an important aspect of these is the impact of M&A on the wealth of shareholders. (Mulherin, 2017), for instance, reviewed more than 120 M&A related-articles published in well-known finance journals since 2011. Findings suggest that, on average, M&A activity creates wealth. On the contrary, (Alexandridis, 2013)examined the deal size, acquisition premiums and shareholders gains. The findings suggest that M&A transactions spoil more values for acquirers around deal announcements.

(Qiu, 2014), studied a sample of concluded M&A transactions between 1994 and 2010 in which both participants are public US firms appended with data for target CEO retention. The author discovered that target CEOs trade shareholder's wealth for private benefits during corporate takeovers.

(Levi, 2014), found that companies managed by female directors are less likely to bid and if they do, pay lower premiums. The findings support the view that female directors help create shareholder's wealth through their role on acquisition decisions.

Regarding the outcome of bids, (Hirshleifer, 1995) for instance, focuses on bidding strategies when the seller consists of individual shareholders who may or may not coordinate their selling (share tendering) decisions. Lack of coordination may lead to free-rider problems (Grossman, 1980) while the existence of a large pivotal shareholder (e.g. management) may lead to issues of strategic defenses. Auction models typically imply that the probability of a successful bid (by the initial or a rival bidder) is equal to one, while the success probability with multiple sellers and informational asymmetries among the transacting parties may be less than one but is assumed to be exogenously given in equilibrium.

(Holl, 1996), investigate the determinants of the outcome of 238 friendly and hostile takeover bids that occurred in the UK during the 1980s. They used their model for prediction purposes and for mapping the effects of multiple independent variables on the probability of the bid being successful. The main results suggest that: First, target management resistance and the wealth effect of a bid are key determinants of the outcome of a bid. Second, there is limited evidence to suggest that share ownership by the bidding company and by target directors also contributes significantly to bid outcome. In the latter case, they found a non–linear relationship, which is consistent with the argument that when director's holdings are low, the bid is discouraged, but when they are high, the bid is encouraged. Third, the model is good at predicting outcome for all bids but weak at predicting the outcome of hostile bids on their own.

(Betton, 2000), found that the initial bidder is more likely to win when it has an ownership stake in the target. Hostility substantially reduces the probability of winning, a rival bidder enters the contest, and the rival wins the auction twice as often as the initial bidder does. Moreover, the initial bidder wins less often when it is a private company, which is intuitive as it may be difficult to get shareholders of a public target to exchange their shares for non-listed bidder shares. In sum, initiating a takeover is risky business. With the substantial resources committed to the takeover process, bidders obviously need to think strategically in order to maximize the expected value of bid initiation.

The findings of (Kastrinaki, 2007) provide strong empirical evidence of the endogenous character of mergers. In addition, firms that are low growth but resource-rich, high growth but resource-poor, pay low dividends have low investment opportunities or are small, are all considered 'attractive' targets.

(Eckbo, 2009), reviewed samples exceeding ten thousands initial bids for U.S. public targets from 1980- 2005. Findings show that the initial bidder wins the target in only two-thirds of cases.

Surprisingly, the initial bidder wins less often when the initial bid is in the form of an invitation to negotiate a merger as opposed to a tender offer.

(Pan, 2015), examines the drivers of bidding success in multiple-bidder merger and acquisition (M&A) announcements. The author employs a series of logistic regression analyses and finds that higher company value, greater profitability, a friendly offer attitude and compatibility in industry specialization between bidders and targets serve as powerful determinants of the success of a given M&A attempt when multiple bidders are present. The findings also suggest that if a small bidder (relative to its target) wants to be the final winner among the multiple bidders, the company's growth opportunities are valued most by the target company's shareholders. A second research is conducted to estimate a series of cross-sectional regression models to explore the determinants of target and bidder announcement returns respectively. The findings suggest that the market already knows around the time of the bidding which bidder will be successful (unsuccessful). The stocks of successful bidders display the typical price increase on the announcement date that is contrary to the results documented in the literature whereas the abnormal returns of unsuccessful bidders fluctuate dramatically during the same period, which can be discerned clearly from the successful bidders.

We conclude, to the best of our knowledge, that none of the studies mentioned above or somewhere else has investigated the significance of the differences between groups of cash bids outcome across the British industry and over time. As it is shown above, merger waves aremerelyconsideredtheresultofacombinationofeconomicandlegalconditionsthatmakethis activity appealing to some companies in certain periods of time and industries. The question is: is this is the case with respect to the outcomes of bids?

In fact, one important aspect of mergers and acquisitions activity, which has not been given enough attention by researchers yet, is the outcome of bids. There are six possible outcomes of an initial bid and their associated probabilities. It starts with the first bid, which may be an offer to negotiate a merger agreement directly to target shareholders. The "contest" may be single-bid (first offer is accepted or rejected with no further observed bids) or multiple-bid (several bids and/or bid revisions are observed). The initial bidder may win, a rival bidder may win, or all bids may be rejected (no bidder wins).

The thrust of this research is to increase understanding of the outcome of bids behaviour in mergers and acquisitions by studying the statistical significance of the differences between some groups of cash bid outcomes of U.K public companies. The question therefore is: are there significant differences between some groups of cash bid outcomes across British economic sectors and over time? This narrow field of research has been chosen because cash is the predominant method of payment in mergers and acquisitions, and shareholders are unwilling to accept the exchange of shares of any but the most well known companies. Two hypotheses arise:

1. Alternative hypothesis: There are significant differences between some groups of cash bids outcome across the British industry and over time.

2. Null hypothesis: There are not significant differences between some groups of cash bids outcome across the British industry and over time.

An answer to the above question should help managers of acquiring and acquired companies to make strategic decisions. Moreover, researchers will have certain specified periods of time and economic sectors for further investigations.

Five sources of published data have been used to gather a large data of U.K public companies during four and half years commencing from January 1987: FAME, the Acquisitions Monthly, the International Stock Exchange Official Yearbook, Data-stream and the Financial Times.

This research is original since it is carrying out an empirical work that has not been done before, bringing new evidence to bear on a rarely investigated issue, and **a**dding to knowledge in a way that has not previously been done before.

I. Method and Procedures:

I. 1.Data Characteristics

I. 1.1 Distribution of Bids over the Period of Study

Appendix n°1 shows that the data consists of 723 bids occurred during four years and half starting from January 1987. The Table shows that the highest number of bids, 25, occurred during the month of July 1987 and 1988, 64 during the fourth quarter of 1988, 117 during the second half of 1988 and 197 bids during 1987. On the contrary, only 2 bids occurred in June 1989, 18 in the first quarter of 1991, 42 in the second half of 1990 and 117 bids in 1990. We observe that the U.K mergers and acquisitions market has experienced a continuous negative trend during the period of study. Compared with 1987, there was nearly 1.52%, 20.81% and 40.60% decrease in the number of mergers in 1988, 1989 and 1990, respectively. The Table also shows that out of 723 bids happened during the period of study, 8 cases are considered as missing due to the lack of their announcement dates.

I. 1.2 Distribution of Bids by Economic Sectors

Appendix n°2 shows the number of bids occurred in the main economic sectors according to the U.K Standard Industrial Classification Code. The Table indicates that most bids, 208 and 130, occurred in the Consumer Services and Consumer Goods Sectors. Only 3 bids occurred in the Energy Sector specialized in coal extraction and manufacture of solid fuels.

I. 1.3 Distribution of Bids by Methods of Payment

Bidding companies offered fifty-two different methods of payment to target companies during the period of study, which include cash, ordinary shares, preference shares, partial preference shares, loan notes, convertible loan notes and all possible mixtures of them**.** Appendix n°3 shows the main methods of payment used for paying bids. On the Table, 626 bids out of 723 are paid only by 6 different methods of payment. Notably, payment by cash alone accounts for nearly 31% of all different methods of payment. The second most frequent method of payment is cash or shares, which accounts for 17.15%. Cash or shares & cash represent 2.62%. We can see that the ability to underwrite share has been dramatically low as compared to cash because, it might be that share bids create some reinvestment problems to institutions or the bidding firm's shareholders face a partial dilution of existing voting rights, or cash offers have a bargaining power on the outcome of a bid. The study is limited to cash bid outcome since cash is the predominant method of payment in mergers and acquisitions, and shareholders are unwilling to accept the exchange of shares of any but the most notorious companies. In this meaning, (Weston, 1990)found that cash payments increase bid premiums.

I. 1.4 Distribution of Bids by Financial Markets

There are 722 bids for target companies traded in 5 different financial markets. Appendix n°4 shows the number of bids for targets in each market. The Table indicates that the highest numbers, 587 and 108, of target companies are traded in the London Stock Exchange and the Unlisted Securities Markets, respectively but only 6 companies are traded in the Third Market.

I. 2. Bids Outcome Descriptive Statistics and Significance Tests

Having looked at the distribution of bids, we shall do a statistical description and some significance tests to the variable, bid outcome. We measure the variable as follows:

OUTCOME = 1 if the offer is successful, and 0 otherwise.

The outcome of bids will be described yearly, six-monthly, by sectors and by financial markets.

I. 2.1. Yearly Outcome Description

Table n°1describes the outcome of bids during the period of study:

Table n°1: Yearly outcome

Years	Outcome				Total
	Successful		Unsuccessful		
	Count	%	Count	%	
1987	156	79	41	21	197
1988	155	80	39	20	194
1989	117	77	35	23	152
1990	95	86	16	14	111
1st half 1991	26	68	12	32	38
Valid N	549		143		692
Missing					31
Total					723

Source: Prepared by the researcher

The Table shows that 86% of offers were successful in 1990 and 80% in 1988. The lowest percentage of success was in the first half of 1991 when 68% of offers were successful and 34% unsuccessful. However, offers were generally 79% successful and only 21% unsuccessful.

I. 2.2. Six-monthly Outcome Description and Significance Tests

Table n°2 indicates that 95% of offers were successful during the second half of 1990 and 83% during both the first half of 1987 and the second half of 1988. The lowest percentage of success, 68, occurred in the first half of 1991. Valid observations for the percentages are 35, 90, 97 and 26, respectively. Bearing in mind that 79% of the whole bids were successful, both the first and the second periods attached to 95% and 83% of a bid success should relatively explain the outcome of bids model if they are taken as explanatory variables. The difference among/between some groups of proportions of a bid success will be tested by using the Z-value test (Levi, 2014)and Chi-Square test (Kazmier, 1988). The Z-value test is applied on each possible pair of the 9 six-moth proportions of a bid success since valid cases of each group is large (Table n°2).

Table n°2: Six-monthly outcome

Groups of six-month	Successful		Unsuccessful		Total
	Count	%	Count	%	
1st half 1987 *	90	83.33	18	16.67	108
2nd half 1987	66	74	23	26	89
1st half 1988	58	75	19	25	77
2nd half 1988	97	83	20	17	117
1st half 1989	54	73	20	27	74
2nd half 1989 *	63	81.08	15	18.92	78
1st half 1990	60	81	14	19	74
2nd half 1990	35	95	2	5	37
1st half 1991	26	68	12	32	38
Valid N	549		143		692
Missing					31
Total					723

Source: Prepared by the researcher

*Except the first half of 1987 and the second half of 1989 where two digits after the decimal point are considered without rounding, digits are rounded to 1 if they are greater or equal 0.5 and to 0 if they are lesser.

The Chi-Square test is applied on the 10 main economic sectors as well as on the 5 financial markets proportions of a bid success together then on each possible pair of these, respectively (see Tables n°3 andn°4). The Chi-Square test is based on the assumption that the groups are randomly and independently selected. This assumption holds true since groups' scores have no obvious partners when they are randomly selected. Because the Chi-Square test analyses differences between obtained and expected frequencies regardless of the direction of differences, there is not a Chi-Square procedure, which is the equivalent of one-tail test concerning a population proportion (Kazmier, 1988). The hypotheses for significance tests are:

1. Alternative hypothesis: There are significant differences between some groups of cash bids outcome (proportions of bids success) across the British industry and over time.

2. Null hypothesis: There are not significant differences between some groups of cash bids outcome (proportions of bids success) across the British industry and over time.

Results from applying the Z-value test indicate that the null hypothesis that there are not significant differences between the different groups of proportions of a bid success is generally accepted at 5% level of significance when Z-statistic = 1.96 is selected, (see Appendix n°5). However, the null hypothesis is rejected with regard to groups 1 and 9 (first half of 1987 and first half of 1991). This means that there are significant differences between the two groups at 5% level of significance and their impact on the outcome of bids will significantly be different if they are considered as explanatory variables. Therefore the variable, HALFON87, representing group 1 which is associated with the highest number of valid cases and percentage of a bid success (compared with group 9 and the percentage, 79, of a bid success during the whole period of study) will be considered as explanatory to the outcome of bids.

I. 2.3. Outcome by Economic Sectors Description and Significance Tests

Table n°3 describes the outcome of bids within ten main economic sectors. The Table indicates a relationship between the outcome of an offer and the target's company sector. Clearly, 100% of offers occurred in SECTOR 1 (the energy sector specialized in coal extraction and manufacture of solid fuels) were successful. However, 2 observations are too small to rely on. In the same way, SECTOR 9 (the consumer services sector) is the best bet for bidders because 86% of 202 offer occurred in it were

successful. By way of contrast, SECTOR 8 (the financial and professional services sector) is not attractive to bidders since only 56% of 9 offers occurred in it were successful. The above figures and the fact that 79% of the whole bids were successful signify that the consideration of SECTOR9 as an explanatory variable to the outcome of bids. As for the difference among sectors' proportions of a bid success, the resulting Chi-Square is equal to 601.90. This value is much larger than the critical values 14.68, 16.92 and 21.67 at 10%, 5% and 1% levels of significance and 9 degrees of freedom, respectively (see Appendices n° 6 and 7). Therefore, the null hypothesis that there are not differences among the sectors' proportions of a bid success is rejected at all levels of significance. Regarding the purpose of the test, which is to select the best group and include it as explanatory variable in the outcome model, a more detailed Chi-Square test is needed. Results from employing the Chi-Square test on each possible pair of groups also indicate that generally the null hypothesis is rejected at 10%, 5%, 1% and 0.5% levels of significance. The criteria for rejecting the null hypothesis and the degree of freedom are 2.71, 3.84, 6.63, 7.88 and 1, respectively (see Appendix n°8). For instance, the only null hypotheses accepted at the 4 levels of significance specified are those associated with groups 2 and 3, 4 and 5, and 6 and 10. Any of those groups is not entitled to be explanatory variable to the outcome of bids since similarities between their proportions of a bid success will add little at best to the explanatory power of it. Nevertheless, any of the remaining groups, 1, 7, 8 and 9 is entitled to be so. However, after considering the number of valid cases and proportions of a bid success, groups 1 and 8 (energy sector specialized in coal extraction and manufacture of solid fuels and financial and professional services sector) are discarded.Group 9 (consumer services sector) is associated with the second highest proportion of a bid success and the highest number of valid cases and is always significantly different from any possible group at the 4 levels of significance specified. Considering that and bearing in mind that the percentage of a bids success during the whole period of study, 79, the variable, SECTOR9, representing group 9 is considered as explanatory to the outcome of bids.

Tablen°3: Outcome by sectors

Groups of Sectors	Outcome				Total
	Successful		Unsuccessful		
	Count	%	Count	%	
1. Energy (coal extraction and manufacture of fuels).	2	100	0	0	2
2. Energy (extraction and preparation of metal ores).	31	78	9	22	40
3.Industrial goods	28	70	12	30	40
4. Consumer goods.	95	75	32	25	127
5. Construction.	92	74	32	26	124
6. Wholesaling, retailing and consumer services.	14	82	3	18	17
7. Transport and communication.	77	83	16	17	93
8. Financial and professional services.	5	56	4	44	9
9. Consumer services.	174	86	28	14	202
10. Diplomatic rep., International Org., Allied Armed forces.	19	76	6	24	25
Valid N	537		142		679
Missing					44
Total					723

Source: Prepared by the researcher

I. 2.4. Outcome by Financial Markets Description and Significance Tests

Table n°4 displays the outcome of 673 bids in 5 financial markets.On the Table, the financial markets seem important discriminators between successful and unsuccessful bids. 95% out 105 bidders have

succeeded in their attempt(s) to control targets traded in the USM (Unlisted Securities Market). The lowest percentage of success is associated with Foreign Companies targets (FC) where 75% out of 3 bids are successful.This percentage is not reliable because of the small number of valid observations and the possibility of being not significantly different from the rest of financial markets proportions of a bid success. These figures and the percentage 79 of success for the entire bids imply that the financial

Table n°4: Outcome by financial markets

Groups of financial markets	Outcome				Total
	Successful		Unsuccessful		
	Count	%	Count	%	
London Stock Exchange (LSE)	412	76	129	24	541
Unlisted Securities Market (USM)	100	95	5	5	105
Over the Counter (OTC)	16	94	1	6	17
Third Market (TM)	5	83	1	17	6
Foreign Companies (FC)	3	75	1	25	4
Valid N	536		137		673
Missing					50
Total					723

Source: Prepared by the researcher

market, USMMTRD, variable is considered as explanatory to the outcome bids. As for the difference between the groups of financial markets proportions of a bid success, the Chi-Square test results show a Chi-Square value of 1614.77 (see Appendicesn°9, 10 and 11). This value is much larger than the critical values 7.78, 9.49 and 13.28 at 10%, 5% and 1% levels of significance and under 4 degrees of freedom, respectively. Therefore, the alternative hypothesis that there are differences among the groups' proportions of a bid success is accepted at the levels specified. Thus, detailed tests for each possible pair of groups are needed. When the Chi-Square test is applied on each possible pair of groups (Appendix n°11), the null hypotheses of groups 4 and 5 (TM and FC), and 3 and 4 (OTC and TM) are accepted at the levels of significance, 10%, 5%, 1% and 0.5%, and 1%, respectively. The criteria for accepting the null hypothesis under 1 degree of freedom are 2.71, 3.84, 6.63 and 7.88, related to those in question. The remaining possible groups' null hypotheses are rejected at all levels of significance specified. This means that any of the groups rejected is entitled to be an explanatory variable to the outcome of a bid if it is associated with an acceptable number of valid cases and percentage of a bid success. Accordingly, groups 4 and 5, and 3 and 4 are discarded, but groups 1 and 2 (LSE and USM) are considered. Group 2 should explain the outcome of bids better than group 1 since it is attached to the highest percentage of a bid success. Therefore the variable, USMMTRD, representing group 2 (the Unlisted Securities Market) will be considered as explanatory to the outcome of a bids.From data tests, the three derived explanatory variables to the outcome of bids are HALFON87, SECTOR9 and USMMTRD. The expected relationship between these variables and the outcome of bids is positive. That is, we expect that if the target company, for instance, is traded in the Unlisted Security Market, the probability that the bid will be successful is high.

Eq. n° 4.1: OUTCOME = f (+ HALFON87 + SECTOR9 + USMMTRD)
(Probability of a bid success equation)

Table n°5 shows some descriptive statistics to the three dummy explanatory variables in the above equation:

Table n°5: Outcome explanatory variables discovered from data analysis

Variables	Variables Measurement				Total
	1		0		
	Count	%	Count	%	
HALFON87	108	16	584	84	692
SECTOR9	202	30	477	70	679
USMMTRD	105	16	568	84	673

Source: Prepared by the researcher

The Table points out that 16% of valid bid outcomes occurred in the first half of 1987, 30% in the consumer services sector and 16% in the Unlisted Securities Financial Market.

II. Study Results (Analysis and Discussion)

In this section, the significant explanatory variables (groups) will be interpreted and discussed briefly:

II.1. HALFON87 (First half 1987)

It is expected that if the bid occurs in the first half of 1987, the outcome of it will be successful. It is well documented that the eighties period was characterized by economic growth in the U.K. Particularly, between 1985 and 1988, U.K economic growth was well above the long run trade rate of 2.5%. The late 1980s were a period of rapid economic expansion, (Pettinger, 2016). In the same context, (Carbonara, 2009)found that the increase in M&A in Italy in 2005 was driven by certain factors; of which and the most significant at the macroeconomic level has been continued economic growth.

II.2. SECTOR9 (Consumer Services Sector)

The Consumer Service Sector is the variety of services delivered to consumers of a product by the firm, which produces, markets, or backs the product. The services may include technical support, warranty registration, problem reports, etc...It is expected that if the bid occurs in the Consumer Service Sector, the outcome of it will be successful. In this sense we mention the study by (Higson, 1998)which describes the accounting goodwill in U.K turnovers between 1976 and 1992. The results indicate very high growth of goodwill in the eighties, which was the outcome of the economy-wide rise in the valuation ratio. The author concludes that though there was an increase in the Service Sector takeovers, the levels of goodwill found in manufacturing takeovers were at least as high and share price returns to acquirers over the bid announcement period indicate extensive overpayment (premiums) for goodwill. Obviously, the bid premiums are, the probability of a bid being successful is.

II.3. USMMTRD (Unlisted Securities financial Market)

The Unlisted Securities Market, which ran from 1980 to 1996, was launched to cater for the many companies, which needed facilities for raising capital and marketing their shares but were unable or unwilling to apply for an official stock exchange listing. In the case of smaller companies, the USM is often preferable to an official listing, for various reasons. It caters for companies with a market capitalization below the £500,000 minimum insisted upon by the Stock Exchange as a prerequisite for an official listing, and a company can gain admission to the USM with only 10 per cent of its equity in public hands as against the 25 per cent necessary for entry to the official list. Other attractions lie in the shorter trading record demanded, the less stringent preconditions to entry and the considerably lower initial costs by way of both advertising and fees, thus giving the benefits of a quotation at a lower cost.

Unlisted companies are the driving force behind the UK economy and used to achieve unprecedented levels of survival and success. The opportunity for investors with a sharp eye to achieve tax-efficient, risk related returns that are not subject to the short-term sentiment driving the main financial markets is exceptional.

The emotion-driven volatility and the high valuations of listed markets have pushed many of the world's largest and most successful investors to invest more in private capital than they do in listed equities. For instance, Princeton, MIT and Bowdoin College all follow Yale's model, and have been outperforming their peers for over 20 years. Europe's largest funds are more conservative, but on average they still have around 16% in private capital vs. 35% in listed. Global family offices are similar, with 18% in private equity and 35% in listed equities.

As (Bhuta, 2017)put it, there are three core reasons for including unlisted equities, particularly Venture Capital, in our portfolio:

1. Listed equity markets have become overcrowded, pushing down returns and pushing up volatility;
2. Listed and unlisted equities are actually driven by the same fundamental economic factors, so limited the universe of equities considered is detrimental;
3. Unlisted markets provide far greater access to many of the digital technology sectors.

We expect, therefore, that the bid will be successful if it occurs in the Unlisted Securities financial Market.

Summary and Conclusion:

First, the data is characterized. Namely, five sources used to gather data are identified as FAME, the Acquisitions Monthly, the International Stock Exchange Official Yearbook, the DataStream and the Financial Times. FAME is the main source of data used. The distribution of bids is tabled monthly, quarterly, half-yearly and yearly during the period of study. The number of bids topped during the year 1987. Bids are also distributed by the ten main economic sectors involved in mergers, methods of payment, financial markets and bids categories. Most bids occurred in the Consumer services sector, paid by cash, most targets were traded in the London Stock Exchange and most bids were agreed between the participants.

Second: The outcome of bids is described. Most successful bids occurred in the third quarter of 1990, but in July 1988, within the consumer services sector and in the Unlisted Securities financial Market. The Z-value and Chi-Square tests are used to compare proportions of a bid success of some groups selected. The Z-value test is applied on 9 six-monthly proportions of a bid success. Results of the test show a significant difference between two groups only. Consequently, the variable HALFON87 is selected as explanatory to the outcome of bids. The Chi-Square test is applied on all

groups together and, then, on each two-pair for both the 10 main economic sectors and 5 financial markets. Results of the test on all groups together show that there are significant differences between both economic sectors and financial markets proportions of a bid success. Consequently, Chi-Square tests on each two groups are needed. By so doing the variables, SECTOR9 and USMMTRD (representing groups 9 and 2), which are significantly different from the remaining groups, have high proportions of a bid success and an acceptable number of valid cases are considered as explanatory to the outcome of bids, respectively. The Chi-Square tests then have the constructing of the outcome of bids Equation. In addition to the outcome of bids, the three dummy explanatory (significant) variables are described.

Third, the main results of the research are discussed and interpreted.

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Appendices:

Appendix n°1: Distribution of bids over the period of study

Period	Period of study					Total
	1987	1988	1989	1990	1st half 1991	
	Count	Count	Count	Count	Count	
January	14	15	13	19	8	69
February	19	14	17	13	4	67
March	22	9	16	17	6	70
April	23	13	11	10	10	67
May	12	12	15	3	12	54
June	18	14	2	13	11	58
July	25	25	13	7	-	70
August	8	13	12	6	-	39
September	23	15	15	8	-	61
October	10	21	8	9	-	48
November	7	24	17	7	-	55
December	16	19	17	5	-	57
Total	197	194	156	117	51	715
1st quarter	55	38	46	49	18	206
2nd quarter	53	39	28	26	33	179
3rd quarter	56	53	40	21	-	170
4th quarter	33	64	42	21	-	160
Total	197	194	156	117	51	715
1st half	108	77	74	75	51	385
2nd half	89	117	82	42	-	330
Total	197	194	156	117	51	715
Yearly total	197	194	156	117	51	715
Missing						08
Total						723

Appendix n°2: Bids by economic sectors

Names of sectors	Number of bids
1. Energy (coal extraction and manufacture of solid fuels).	3
2. Energy (extraction and preparation of metallic ores).	40
3.Industrial goods	41
4A. Consumer goods (others)	130
4B. Footwear and clothing industries	7
5A. Construction (others)	64
5B. Building completion work	63
6. Wholesaling, retailing and consumer services.	19
7. Transport and communication.	93
8. Financial and professional services.	9
9. Consumer services.	208
10. Diplomatic rep., International Org., allied armed forces.	28
Total targets' sectors	**705**
Missing target' sectors	**18**
Total bids during the study period	**723**

Appendix n°3: Bids by main methods of payment

Methods of payment	Number of bids
1.Cash only	224
2.Cash or shares	124
3.Cash or loan notes	122
4.Shares only	116
5.Cash & shares	21
6.Cash or shares & cash	19
Total of main methods of payment	**626**
Total of other methods	**97**
Total	**723**

Appendix no 4: Bids by financial markets

Financial markets	Number of bids
1.London Stock Exchange (LSE)	587
2.Unlisted Securities Market (USM)	108
3.Over-The Counter Share Market (OTC)	17
4.Third Market (TM)	6
5.Foreign Company (FC)	4
Total available targets financial markets	**722**
Missing target financial markets	**1**
Total	**723**

Appendix n°5: Six-monthly groups Z-value for proportions difference

	p	*S	Z-value
9 groups of six-month proportions of bid success			
1 and 2	0.79	0.06	1.6
1 and 3	0.80	0.06	1.39
1 and 4	0.83	0.05	0.26
1 and 5	0.79	0.06	1.68
1 and 6	0.82	0.06	0.4
1 and 7	0.82	0.06	0.41
1 and 8	0.86	0.07	-1.78
1 and 9	0.79	0.08	2.01
2 and 3	0.74	0.07	-0.15
2 and 4	0.79	0.06	-1.39
2 and 5	0.74	0.07	0.14
2 and 6	0.77	0.06	-1.09
2 and 7	0.77	0.07	-1.06
2 and 8	0.80	0.08	-2.69
2 and 9	0.72	0.09	0.69
3 and 4	0.79	0.06	-1.18
3 and 5	0.74	0.07	0.28
3 and 6	0.78	0.07	-0.91
3 and 7	0.78	0.07	-0.89
3 and 8	0.81	0.08	-2.57
3 and 9	0.73	0.09	0.79
4 and 5	0.79	0.06	1.48
4 and 6	0.82	0.06	0.16
4 and 7	0.82	0.06	0.17
4 and 8	0.85	0.07	-1.94
4 and 9	0.79	0.08	1.83
5 and 6	0.77	0.07	-1.19
5 and 7	0.77	0.07	-1.16
5 and 8	0.80	0.08	-2.75
5 and 9	0.71	0.09	0.55
6 and 7	0.81	0.06	0.01
6 and 8	0.86	0.07	-1.99
6 and 9	0.75	0.1	1.29
7 and 8	0.86	0.07	-1.98
7 and 9	0.77	0.08	1.54

8 and 9	0.81	0.9	0.30

***s = SQRT {(pq/n_1) + (pq/n_2)}**

Appendix n°6: Observed frequencies of sectors bid outcome

	No. of bid success	No. of bid failure	Total
Economic sectors			
1	2	0	2
2	31	9	40
3	28	12	40
4	95	32	127
5	92	32	124
6	14	3	17
7	77	16	93
8	5	4	9
9	174	28	202
10	19	6	25
Total	537	142	679

Appendix n°7: Expected frequencies of sectors bid outcome

	No. of bid success	No. of bid failure	Total
Economic sectors			
1	53.7	14.2	67.9
2	53.7	14.2	67.9
3	53.7	14.2	67.9
4	53.7	14.2	67.9
5	53.7	14.2	67.9
6	53.7	14.2	67.9
7	53.7	14.2	67.9
8	53.7	14.2	67.9
9	53.7	14.2	67.9
10	53.7	14.2	67.9
Total	537	142	679

Appendix n°8: X^2-test for sectors proportions of bid success

10 main economic sectors	X^2-value
1 and 2	34.48
1 and 3	34.53
1 and 4	121.16
1 and 5	118.17
1 and 6	12
1 and 7	87.2
1 and 8	5.29
1 and 9	196.09
1 and 10	19.76
2 and 3	0.58
2 and 4	45.41
2 and 5	43.15
2 and 6	9.42
2 and 7	21.55
2 and 8	20.70
2 and 9	109.51
2 and 10	3.48
3 and 4	45.59
3 and 5	43.22
3 and 6	10.07
3 and 7	23.44
3 and 8	20.03
3 and 9	111.92
3 and 10	3.72

4 and 5	0.05
4 and 6	84.22
4 and 7	7.22
4 and 8	102.78
4 and 9	23.47
4 and 10	68.46
5 and 6	81.42
5 and 7	6.66
5 and 8	99.81
5 and 9	25.54
5 and 10	65.80
6 and 7	52.51
6 and 8	4.41
6 and 9	156.33
6 and 10	1.76
7 and 8	70.42
7 and 9	40.76
7 and 10	39.59
8 and 9	177.56
8 and 10	8.57
9 and 10	138.72

Appendix n°9: Observed frequencies of financial markets bid outcome

	No. of bid success	**No. of bid failure**	**Total**
Financial markets			
LSE	412	129	541
USM	100	5	105
OTC	16	1	17
TM	5	1	6
FC	3	1	4
Total	536	137	673

Appendix n°10: Expected frequencies of financial markets bid outcome

	No. of bid success	**No. of bid failure**	**Total**
Financial markets			
LSE	107.2	27.4	134.6
USM	107.2	27.4	134.6
OTC	107.2	27.4	134.6
TM	107.2	27.4	134.6
FC	107.2	27.4	134.6
Total	536	137	673

Appendix n°11: X^2-test for financial markets proportions of a bid success

5 groups financial markets	**X^2-value**
1 and 2	304.87
1 and 3	492.42
1 and 4	523.27
1 and 5	529.12
2 and 3	63.49
2 and 4	88.62
2 and 5	94.02
3 and 4	5.76
3 and 5	8.89
4 and 5	0.5