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CLAREMONT McKENNA COLLEGE

THE EFFECTS OF NETFLIX AND BLOCKBUSTER STRATEGIES ON FIRM VALUE

SUBMITTED TO
PROFESSOR DARREN FILSON
AND
DEAN GREGORY HESS
BY
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Abstract

Blockbuster and Netflix are two firms in the home video rental market that experienced vastly different outcomes. Netflix vastly increased its firm value while Blockbuster lost its dominant market position and slid into bankruptcy. This paper examines the strategies pursued by Blockbuster and Netflix and the impact these strategies had on firm value. This paper finds that on average Blockbuster's strategies did not have a significant impact on its firm value while Netflix's strategies increased its firm value. Specifically, Netflix's strategies in the areas of service improvement and promotional activity created the most value. The strategies each firm pursued in product line expansion provided value for Blockbuster but reduced value for Netflix.

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I. Introduction

Analyzing firm strategy can provide important insight into many factors of a firm's success. What allows one firm to thrive while another fails? Blockbuster, for example, saw its firm value drop to one three-thousandth of its value in the same period Netflix saw its value increase sixteen times. This paper seeks to determine how the firm values of Blockbuster and Netflix were impacted by the companies' respective strategies. In order to quantify the effects of each firm's strategies this paper will utilize an event study. The scope of the event study spans the time between Netflix's IPO on May 29th, 2002 and Blockbuster's delisting from the NYSE on July 6th 2010. The study focuses on eight categories of strategies: content licensing agreements, distribution center expansion, mergers and acquisitions, personnel, product line expansion, promotional activity, service improvements, competitor strategies. Each of these categories will be considered for their effect on both the firm and its competitor.

The results demonstrate that strategies do not have a homogenous effect with both firms. The study concludes that content licensing agreements, distribution center expansion, merger and acquisition activity, and personnel had no significant impact on firm value. Product line expansion provided an increase in firm value for Blockbuster and a decrease in firm value for Netflix. Promotional activity and service improvements benefitted Netflix but did not change Blockbuster's firm value. Netflix's product expansions reduced Blockbuster's firm value but Blockbuster's strategies did not affect

Netflix.

This study builds on other studies that have analyzed the impact of strategy on firm value. This study is the first of its kind to analyze the entry of a new firm that into an industry that eventually supplants a large and established incumbent firm in the movie rental industry.

II. Literature Review

There has been limited research into strategy within the home movie rental industry and extremely limited research pertaining to Netflix and Blockbuster as firms within this industry. A large body of literature, however, exists concerning event studies, strategic interaction between first and second mover firms, and the home movie industry as a whole.

MacKinlay (1997) lays out the methodology used to create event studies for economics and finance. His paper begins by discussing the applications of event studies for Finance and Economics. This discussion highlights the breadth of applications for event studies. The paper discusses the procedure for setting up an event study. It continues with a sample study that breaks an event study into its component parts. The first section covers the procedure for creating models that measure normal performance including the market model. The following section demonstrates the technique for calculating cumulative abnormal returns. This section includes a discussion of event windows and complications that can arise from clustering of events within the same event window. The remainder of the paper covers an analysis of the power of event studies. The paper closes with a discussion of possible issues with event studies such as sampling

interval effects, problems with event-date uncertainty, and other possible biases such as those created by nonsynchronous trading.

Rasmusen and Yoon (2007) analyze whether it is better for a firm to move first or second. Their study looks specifically at a setting in which commitment may be valuable, the results of the first move are not immediately observable and information is asymmetric. The study concerns a duopoly of two players, one of whom is better but not perfectly informed about market quality, who must decide which of two markets to enter. Their study concludes that the decisions that the firms will pursue are related to the perceived quality of their competitor's information. If a second mover firm believes that the first mover has valuable information that led it to choose to enter a specific market, then the second mover will choose to enter that market as well. If the second mover believes that the information is less valuable then it will enter a different market. The variation in perceived value of information can result in less than optimal outcomes as some firms will misjudge information and end up competing in a duopoly market when they could have realized greater profits from being a monopolist in a different market. The model described in the paper concerns geographic markets but is suited to new products, input markets, or other varieties of innovation.

Hoppe (2000) researches the relationship between first and second movers when implementing a new technology. This study investigates the costs and uncertainty involved with technological innovation. Hoppe investigates the interplay of four main effects: the preemption effect, the business-stealing effect, the informational-spillover effect and the consumer-surplus effect. Each of these effects varies based on the timing of

technological adoption by a first or second mover and the availability of information regarding the profitability of implementing a new technology. Hoppe's model finds that, on average, the second mover will be better off.

In their paper *Valuing Customers* (2008), Gupta, Lehmann, and Stuart evaluate the metrics by which customers are valued by firms. Their focus is on subscription services. They find that customer retention is an overlooked and undervalued strategy for improving firm performance. Their most important empirical results are that a 1% increase in subscriber retention results in a 5% increase in firm value. They similarly find that a 1% improvement in retention has almost five times more impact on firm value than a 1% change in discount rate or cost of capital.

In *The Dynamics of the Movie Industry: Theatrical Exhibitions and DVD Rentals* (2007), Yangsoo Jin explores the relationship between supply and demand for both theatrical releases and home video rentals. He extends his paper to investigate the differences between theatrical exhibitions and DVD rentals as a form of price discrimination. In his first chapter Jin reviews the overall industry structure and notes a growing trend towards DVD and digital TV adoption in households as a driver for growth in the home movie market. In his chapter on demand, Jin finds that consumers are heterogeneous and that the two movie versions are vertically differentiated products. In his final chapter covering the supply side of the movie industry, Jin finds that based on regression analysis, there is no consistent correlation between movie characteristics and the window between theatrical and DVD release. Instead Jin finds that movie windows are determined by the genre of the movie. Jin also notes an industry wide shift away from

video rental firms buying films from distributors to revenue sharing agreements.

In his 2001 book on the rise of the home video industry titled Veni, vidi, video: The Hollywood empire and the VCR, Frederic Wasser charts the ascendance of the VCR cassette and home video as a medium of distributing films. His book covers in broad detail the conditions of the market before the introduction of the VCR. He then proceeds to review the developments in technology that enabled the home video industry to take off. This section includes a discussion of the Betamax vs. VHS format wars as well as trends in manufacturing and development that quartered the cost of a VCRs and made them widely available. The book continues with a history of the early years of home video during which the major studios end their resistance to the format and begin distributing their films. This segment also outlines the beginnings of the video rental business by individual entrepreneurs. Wasser then charts the early years of the video rental industry in which independent rental companies, through strategies like pre-buying and pre-selling were able to gain tremendous profits while major studios still attempted to stifle the growth of the industry through legislation and restrictive contracts. The final chapter describes the entry of all the major distributors into the industry and the beginning of a shakeout in the video rental industry. This shakeout resulted in Blockbuster expanding by pushing for wide acceptance of the medium and bringing a huge range of selection to their stores. This allowed Blockbuster to control over 27% of the market by 1992.

Filson (2004) utilizes an event study framework to determine the effects of firm strategy for CDNow, N2K, Amazon.com, and Barnesandnoble.com. To calculate the

cumulative abnormal stock returns, Filson analyzes strategy announcements made by the companies through public news as well as announcements made on each of the companies own websites beginning at their IPOs and ending on December 31, 2001. After gathering data on the companies strategies, Filson organizes their strategies into one of five strategy categories: Promotional Alliances and Advertising, Offline Customer Service Center and Distribution Center Expansion, Pricing Strategy, Product Line Expansion and Service Improvement, and Competitor Strategies. Filson then utilizes an event window of two days before the event and one day after to capture the effect of strategy announcements. From his results Filson finds that promotional activities have diminishing marginal returns and that only Amazon.com had promotional activities that were successful as a whole. In regards to offline customer service center and distribution center expansion, Filson finds once again that there are diminishing marginal returns to this strategy. It is noted that initial strategies of this type create gains for Amazon early on but lead to losses later on. Filson finds that price competition reduces value for all firms. The results of expansions in product line and service improvements have a split result. It is shown that product line expansions in general generated value for the firms that pursued these strategies. In the final category of competitor announcements, the results show that when a firm announces an expansion into a competitors' main line of business the competitor will suffer a reduction in firm value. It should be noted that Amazon.com suffers much less from these effects due to its relatively large size and that N2K suffered significant losses from this effect up until its merger with CDNow. This study confirms that the market will react to a firms strategy decisions and that managers should utilize information about market reactions in formulating strategies for the future.

The literature covering the home video market has not covered the innovation of the home video by mail business model. My paper will look to the strategies pursued by Blockbuster and Netflix during the period in which they competed in the DVD rental by mail market. My paper will analyze the strategies pursued by Netflix, the first mover in this space, and then by Blockbuster, the second mover. My study will investigate the strategies that allowed Netflix to supplant Blockbuster in the home video market.

III. Theory

This study addresses several different strategies pursued by Netflix and Blockbuster and derives testable hypotheses from the literature covering the effects of first and second movers in uncertain environments. These hypotheses are created based on frameworks laid out by Rasmusen and Yoon (2007), Hoppe (2000), and Filson (2004). These works detail the effects of strategies pursued by firms entering new environments and deploying new technologies within their industries. Given that the two firms experienced extremely different outcomes, this study seeks to determine which strategies contributed to the success and failure of each firm.

Content Licensing agreements

Both Blockbuster and Netflix utilized content licensing agreements to gain access to additional content for their online streaming services. These content deals, especially the deals that are exclusive, come at a high cost. Content deals are critical to the continued success of these two firms; as a result they may end up accepting unfavorable terms.

Boone and Harold Mulherin (2008) observe the presence of a winner's curse which may explain the drop in firm value after signing content deals. The winner's curse is an effect whereby acquiring firms do not, on average, benefit from their acquisitions. Blockbuster and Netflix may be willing to accept a loss in the short term to ensure their access to content that is essential to their business. The expensive nature of content deals versus their benefit suggests that the total effect of content licensing agreements should be tested.

Hypothesis 1: The high cost of content licensing agreements will have an overall negative effect on firm value.

Distribution center expansion

The expansion of distribution centers requires the purchase or lease of warehouses and the hiring of additional staff. These activities raise the overall cost of operations and diminish company margins. These investments also allow the firms to serve a larger customer base more effectively. Given the small number of events of this nature and the shift both companies have exhibited towards online content delivery distribution center expansion should not have a strong effect on firm value. Hypothesis 2: Distribution center expansion will not have a significant effect on firm value.

Mergers and Acquisitions

Only Blockbuster engaged in merger and acquisition activity during the time period considered by this study. Andrade Mitchell and Stafford (2001) prove in their paper that merger and acquisitions generate more value for the acquired firm and cause the

acquiring firm to lose a small amount of value. I expect that this would hold true for Blockbuster.

Hypothesis 3: Blockbuster's acquisitions will have a small negative impact on firm value.

The sale of Blockbuster's units will have a small positive impact on firm value.

Personnel

The hiring and firing of personnel, especially executives, can indicate a firm's decision to change strategies and result in an effect on firm value. Overall this effect should be dominated by other effects and not generate a significant change in firm value. Hypothesis 4: Personnel strategies will not have a significant effect on firm value.

Product Line Expansion

When expanding a product line it is very difficult to judge how consumers will react to a new offering from a firm. The difficulty of judging consumer reaction means that many product line expansions will reduce firm value or have no effect. A single new product, however, could be the driver for a large increase in firm value. Additionally, Blockbuster expanded its product line twice to offer a competing product already offered by Netflix. Ramusen and Yoon (2007) and Hoppe (2000) suggest that in this situation the second moving firm will generate more value with its expansion because more is known about the product and the consumer's reaction to it.

Hypothesis 5: Product line expansions will lead to an increase in firm value. This increase will be driven by a few high value products that offset many negative or valueless products. Second movers making similar product expansions will derive a larger increase in firm value than first movers.

Promotional Activity

Netflix and later Blockbuster both introduced new products into the marketplace during

the time period covered by this study. It is essential that Blockbuster and Netflix grow

their brand awareness and develop consumer familiarity with their offerings. Promotional

activity will increase brand awareness and drive more consumers to utilize the services

offered by these firms.

Hypothesis 6: Promotion activity will increase firm value.

Service Improvements

Service improvements are incremental improvements of existing products or services.

These improvements come in the form of partnerships with other firms as well as

internally developed product improvements. Both Blockbuster and Netflix rely on

subscription models that are sensitive to subscriber churn and service improvements are

one way of seeking to reduce churn. Gupta, Lehmann, and Stuart (2004) emphasize the

importance of subscriber retention as a substantial driver for firm value. Service

improvements that improve subscriber retention and draw new subscribers will increase

firm value.

Hypothesis 7: Service improvements will increase firm value.

Competitor Strategies

Blockbuster and Netflix directly compete in their main lines of business. For each firm a

strategy that increases the firm's value will come at partially at the expense of its

competitor. As Netflix becomes significantly larger than Blockbuster, its effect on

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Blockbuster is more pronounced and Blockbuster's effect on Netflix. Hypothesis 8: Strategies that affect a competing firm's main line of business will reduce the competing firm's value.

IV. Data

The data for this study consists of two separate data sets. The first set is made up of daily stock returns for Blockbuster class A shares and Netflix shares along with daily returns for the Standard and Poor's 500. These returns were gathered from The Wharton Research Data Service's Center for Research in Security Prices database. The returns spanned from May 24th 2002, the day after Netflix's IPO, until July 6th 2010 the final day that Blockbuster class A shares were traded before Blockbuster was delisted from the NYSE. Table 1 contains descriptive statistics for this data set.

Table 1 Summary Statistics

| Blockbuster Daily Stock Returns | | Netflix Daily Stock Returns | | S&P 500 Daily Stock Returns | |
|---------------------------------|---------|-----------------------------|--------|-----------------------------|--------|
| | 0.0000 | | 0.0001 | | 0.0004 |
| Mean | -0.0009 | Mean | 0.0021 | Mean | 0.0001 |
| Standard Error | 0.0013 | Standard Error | 0.0009 | Standard Error | 0.0003 |
| Median | -0.0026 | Median | 0.0004 | Median | 0.0007 |
| Standard Deviation | 0.057 | Standard Deviation | 0.041 | Standard Deviation | 0.014 |
| Range | 1.91 | Range | 0.77 | Range | 0.21 |
| Minimum | -0.78 | Minimum | -0.41 | Minimum | -0.090 |
| Maximum | 1.14 | Maximum | 0.36 | Maximum | 0.12 |
| Count | 2043 | Count | 2043 | Count | 2043 |

The second set of data consists of press releases from both Blockbuster and Netflix. In this study, press releases serve to communicate firm strategies. Press releases ranging from May 1st 2002 to July 6th 2010 were obtained from Lexis-Nexis: PR Newswire. PR Newswire provided 450 press releases for that time frame for Blockbuster

and 149 for Netflix. These press releases were then culled to remove any press releases that contained extraneous information such as financial announcements or reviews of the week's top rentals. The remaining releases were then analyzed to determine discrete categories. The categories for personnel, distribution center expansions, promotional activity, and merger and acquisition activity were straightforward to establish. Any release that announced the acquisition of a new content or licensing deal for either physical or streaming media was categorized as a content licensing agreement. The final distinction was between product line expansion and service improvements. The category of product line expansion was reserved for large new products that the firm had not previously offered, for example Netflix rolling out its Instant Watch streaming service. Service improvements were any releases that announced improvements to already existing products such as the availability of Blu-ray disk or a partnership with Apple to stream Instant Watch to iPads. The resulting data set consisted of 68 press releases pertaining to Netflix and 67 pertaining to Blockbuster.

V. Methodology

The methodology for this study follows the procedure set out by MacKinlay in his 1997 paper: *Event Studies in Economics and Finance*. To determine the cumulative abnormal return of each event the first step is to determine normal returns. Normal returns are calculated by examining the daily returns of a company within an estimation window. I used an estimation window that covered the 250 trading days prior to the ten days before the event. This estimation window allows for the capture of normal returns without capturing any effects that may be caused in the lead up to the event itself. Some events

that occurred early on in the data set did not have corresponding returns that went back far enough and were dropped from the model.

The next step in calculating abnormal return is to establish the event window. While building my model, I experimented with many different event windows. In the end I chose an event window that covers the trading day before the event and the day of the event. This narrow window allows me to capture the effect of the event as well as some effects caused by information leakage. Wider windows introduced too much noise in the model and narrower models failed to fully capture the effect. Four of the press releases were released on non-trading days. In these cases the event date was set to the subsequent trading day. Once the event window has been set the model estimates the return of the event by summing the cumulative abnormal returns of each day in the event with the formula $CAR_i = \sum_{i=1}^{0} e_{it}$. The estimated abnormal returns calculated from the estimation window and the event windows are then compared to determine the cumulative abnormal return of the event. Finally a T test is utilized to check if the CAR is significantly different from zero.

The final step in this process was to build a second model that would calculate the cross effects of each event. In order to calculate the cross effects of each event the same method was used except that this model reassigned the stock returns of Blockbuster to Netflix and Netflix to Blockbuster. By reassigning the stock returns the same model can be used to determine the effects of each firm's events on their competitor's firm value.

VI. Results

Table 2 through table 6 summarizes the cumulative abnormal returns calculated by the event study. These results are summaries for sum and average effects as well as cross effects.

Content Licensing agreements

The results of the event study as shown in Tables 2 and 3 are not significant enough to support or reject the hypothesis that the high initial cost of content licensing agreements results in a reduction in firm value. As shown by Table 2 and 3 the effects of the strategy were not statistically significant for either Blockbuster or Netflix. There is an individual event that supports my hypothesis for Netflix as shown in table 5. When Netflix and Starz entertainment announced an agreement to stream Starz movies on Netflix Instant Watch the firm value of Netflix fell sharply (CAR -.11, significant at the 5% level). Despite initial positive reaction from Netflix customers on the Netflix blog, the company lost firm value as a result of this strategy.

The question and answer section of the Q4 2008 earnings call reflects what may be the cause of this significant drop. Starz was the first major content licensing deal done by Netflix and analysts were nervous about the potentially high costs of such a deal and their effect on Netflix's margins. After Netflix's margins continued to grow after this deal, subsequent deals did not have a significant negative impact on firm value.

Distribution center expansion

Table 2 and 3 support hypothesis 2: distribution center expansion does not have a statistically significant impact on firm value as a category. Table 5 shows that the opening of a new shipping center in Kansas City had a positive effect (CAR .11, significant at the 10% level). This single event, while significant, cannot be explained by theory especially in light of other expansions that caused extremely low cumulative abnormal returns.

Mergers and Acquisitions

Table 4 rejects hypothesis 3. While the sum and average effects shown by tables 2 and 3 are insignificant, this is caused by two events with large but oppositely signed coefficients. Table 4 shows that the results run exactly opposite to theory. Blockbuster's acquisition of Hollywood Entertainment resulted in a large increase in firm value (CAR .14, significant at the 1% level). Hollywood Entertainment was one of Blockbuster's largest competitors and this acquisition signals the end of the industry shakeout and solidifies Blockbuster as the market leader. I believe that market sentiment regarding this buyout overwhelmed the theoretical basis for seeing a decrease in firm value after this acquisition.

The second event that needs to be considered is Blockbuster's sale of Game Station Limited, a UK based game rental and retail chain, which reduced Blockbuster's value (CAR -.14, significant at the 1% level). This represents a loss of 165.5 million dollars of firm value. This sale was part of Blockbuster's initiative to sell off ancillary businesses in order to pay down its debt. This loss in firm suggests that investors saw this as a signal of Blockbuster's financial distress.

Personnel

Table 2 and 3 support hypothesis 4: the aggregate personnel strategy did not have a significant impact on firm value. One specific event within the personnel strategy category had a significant effect. The March 2007 announcement that Blockbuster entered into an amended and restated employment agreement caused the firm to suffer large reduction in firm value (CAR -.063, significant at the 10% level). This amended employment agreement set out the terms under which Blockbuster's CEO would leave the company at the end of 2007. This event signifies a significant management shakeup and was treated by the market as an indicator of Blockbuster's deteriorating health.

Product Line Expansion

The results provide mixed support for hypothesis 5: Netflix's product line expansions resulted in a significant reduction in firm value (CAR -0.05, significant at the 5% level). This is not consistent with the first part of hypothesis 5. Netflix did not have any strong value generating product expansions to offset losses caused by less successful expansions. This result is consistent with the theory that new companies launching new products do not have sufficient information about the market and as a result many of their new products will fail. Blockbuster's product line expansions generated on average an increase in firm value (CAR 0.048, significant at the 5% level). This result supports the theory that product launches will on average increase firm value. However, the nature of the event that drove most of this increase in firm value confirms the theory established by Ramusen and Yoon (2007) and Hoppe (2000).

Blockbuster's release of Blockbuster Total Access was a product that was similar to what Netflix already offered. In this case by being the second mover and being able to gain more market information, Blockbuster was able to create more firm value by launching its product than Netflix was able to do with its initial launch. By moving second blockbuster was able to capture a sizable increase in firm value from its product launch (CAR .132, significant at the 1% level).

Promotional Activity

The results of the event study partially support hypothesis 6: Netflix's promotional activity had on average, a positive impact on firm value (CAR .021, significant at the 5% level). Blockbuster's promotional activity did not have a significant impact on firm value. This result shows that Netflix has a much less established brand and required advertisement in order to inform consumers of its products and bring in new subscribers.

Service Improvements

Hypothesis 7 was found to be only partially supported by the data. Blockbuster's firm value was not significantly affected by service improvements. Netflix was able to derive an increase in firm value from its service improvements (CAR .021, significant at the 10% level). A majority of these improvements involved partnerships that brought Netflix streaming services to new devices. These improvements allowed Netflix to capture more subscribers and grow their business.

Competitor Strategies

Table 6 shows events that support hypothesis 8. No strategy category showed significant effects of competitor strategies effecting firm value. In addition, Blockbuster did not have any strategies that had a significant negative effect on Netflix's firm value. This effect could be caused by Netflix's relatively larger size: by late 2005 Netflix's market capitalization had exceeded that of Blockbuster as shown by Chart 1. Table 6 shows the significant Netflix strategies that resulted in a loss of firm value for Blockbuster. As theorized, all of these strategies represent a direct challenge to Blockbuster's main line of business.

VII. Conclusion

Firms competing in an industry with rapidly changing dynamics must move quickly and keep up with the constant changes to their competitive environment. This study examines which strategies succeeded or failed in generating firm value for Blockbuster and Netflix in the home movie rental industry. The results of this study can be generalized to include both old and new firms operating in competitive environments with a high level of product innovation. The first insight drawn from this study highlights the importance of promotional activity for new firms. As an incumbent, firm Netflix's promotional activity was essential to increasing its firm value. This type of activity was far less valuable to the more established and well-known Blockbuster. This study concludes that personnel, M&A activity, distribution center expansion, and content licensing agreements strategies did not significantly affect firm value. Therefore, these strategies should not be pursued by managers as a means of generating immediate increases in firm value.

The results for product line expansion demonstrate the importance of

understanding the market environment before releasing products. In this study Blockbuster was able to capture an increase in firm value by releasing products similar to those previously released by Netflix. This effect demonstrates the advantage that second movers can have in deploying new technologies. The study also demonstrates that the market can undervalue product line expansions at the time they are announced. The roll out Netflix's instant watch streaming service resulted in a loss in firm value even though several years later this service is now the primary driver of Netflix's growth.

Service improvements were the last category of strategies evaluated. The efficacy of these strategies cannot be generalized. They provided a boost in firm value for Netflix and no significant effect for Blockbuster. This difference is surprising considering the nearly identical means by which Blockbuster and Netflix improved their service. This could be because a majority of these service improvements happened late in the time period I was covering. By this point Netflix was many times larger than Blockbuster and its improvements would have more effect on its much larger subscriber base.

This study suggests that strategy does not adequately explain the drivers of Netflix's rapid growth or Blockbuster's failure. On the aggregate, Blockbuster's strategy did not have a significant effect on firm value. Blockbuster's strategies suggest a firm with an obsolete business model attempting to match a competitor's new products while maintaining its core business. The causes of its failure most likely originated before Netflix became a serious competitor and are not captured by this paper. Netflix's strategies as a whole provided a significant increase to firm value and can be cited as one of the causes of Netflix's sustained growth. These results demonstrate that announced

firm strategy should be considered for their effect on firm value to provide insight to both managers and investors.

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IX. Appendix

Table 2 Summary of Total Effects of Strategies

| Strategy | Blockbuster | Netflix |
|-------------------------------|-------------|---------|
| Content licensing agreement | 0.15 | -0.17 |
| | (3) | (13) |
| Distribution Center Expansion | 0.015 | .11 |
| | (1) | (2) |
| M&A Activity | -0.0077 | - |
| | (2) | (0) |
| Personnel | 0.090 | 0.041 |
| | (12) | (10) |
| Product Line Expansion | 0.19** | -0.15** |
| | (4) | (3) |
| Promotional Activity | -0.56 | 0.50** |
| | (22) | (24) |
| Service Improvement | -0.29 | 0.34* |
| | (23) | (16) |
| All Strategies | -0.41 | 0.67* |
| | (67) | (68) |

Table Shows Cumulative abnormal returns (number of events).
* Significant at 10% level (1.64)
** Significant at 5% level (1.96)

Table 3 Summary of Average Effects of Strategies

| Strategy | Blockbuster | Netflix |
|-------------------------------|-------------|----------|
| Content licensing agreement | 0.049 | -0.17 |
| | (3,0,0) | (13,0,1) |
| Distribution Center Expansion | 0.015 | 0.055 |
| | (1,0,0) | (2,1,0) |
| M&A Activity | -0.0039 | - |
| | (2,1,1) | (0) |
| Personnel | 0.0075 | 0.0041 |
| | (12,0,1) | (10,0,0) |
| Product Line Expansion | 0.048 | -0.050 |
| | (4,1,1) | (3,0,2) |
| Promotional Activity | -0.025 | 0.021 |
| | (22,2,3) | (24,6,0) |
| Service Improvement | -0.013 | 0.021 |
| | (23,2,1) | (16,2,1) |
| All Strategies | -0.0061 | 0.0098 |
| | (67,6,7) | (68,9,3) |

Table Shows Cumulative abnormal returns/Number of Events (number of events, number positive and significant at 10% level, and number negative and significant at the 10% level)

Table 4 Blockbuster Key Strategy Announcements

| Table 4 Blockbuster Rey Strategy Announcements | | | |
|--|-----------|----------|----------|
| Strategy | Date | CAR | \$ Value |
| M&A Activity: | | | |
| Blockbuster Announces Sale of Games Station Limited to THE | 2-May-07 | 14*** | -104.29 |
| GAME GROUP PLC | | | |
| Blockbuster Confirms Expression of Interest to Acquire | 29-Mar-04 | 0.14*** | 89.75 |
| Hollywood Entertainment Corp for \$11.50 Per Share in Cash | | | |
| Personnel: | | | |
| Blockbuster Inc. and CEO Enter into Amended and Restated | 20-Mar-07 | -0.063* | -53.19 |
| Employment Agreement | | | |
| Product Line Expansion: | | | |
| National Launch of Blockbuster Movie Pass Means | 25-May- | 0.030 | 16.63 |
| Unlimited Movie Rentals | 04 | | |
| Blockbuster(R) and Live Nation Enter Into Three-year | 2-Dec-08 | 0.068 | 9.77 |
| Exclusive Retail Ticket Distribution Deal | | | |
| BLOCK-BUSTER Total Access Launch | 2-Nov-06 | 0.132*** | 61.45 |
| Blockbuster Launches New Online DVD Rental Service | 11-Aug-04 | -0.037 | -17.02 |
| Service Improvement: | _ | | |
| BLOCKBUSTER On Demand(R) to be Available on the Latest | 22-Mar-10 | 0.16 | 6.27 |
| Samsung HDTVs, Blu-ray Players and Home Theaters | | | |
| Blockbuster to Expand Blu-Ray to 1,700 Stores | 18-Jun-07 | 0.052 | 27.15 |

Table Shows Cumulative Abnormal Returns and Estimated Dollar Value Effect (millions). Dollar Effect is computer by multiplying the CAR by Blockbuster's market capitalization prior to the event window (two days before the event)

^{*} Significant at 10% level (1.64)

** Significant at 5% level (1.96)

*** Significant at 1% level (2.58)

Table 5 Netflix Key Strategy Announcements

| Table 5 Nethax Key Strategy Announcements | | | |
|---|-----------|----------|----------|
| Strategy | Date | CAR | \$ Value |
| Content licensing agreements: | | | |
| Netflix and Starz Entertainment Announce Agreement to | 1-Oct-08 | -0.11** | -211.58 |
| Make Movies From Starz Play Available for Instant Streaming | | | |
| Distribution Center Expansion: | | | |
| Netflix Opens New Shipping Center | 29-Mar-04 | 0.11* | 167.60 |
| Product Line Expansion: | | | |
| Netflix Offers Subscribers the Option of Instantly Watching | 16-Jan-07 | -0.066 | -109.77 |
| Movies on Their PCs | | | |
| Netflix Now Offers Subscribers Unlimited Streaming of | 14-Jan-08 | -0.078** | -125.06 |
| Movies and TV Shows on Their PCs for Same Monthly Fee | | | |
| Promotional Activity: | | | |
| Netflix Teams With IFC, Vince Vaughn and Jon Favreau on | 31-Jan-08 | 0.073** | 109.75 |
| 'Dinner for Five: The 50th Episode | | | |
| Nearly One Billion Movies Later, Netflix Approaches | 25-Oct-06 | 0.20*** | 314.60 |
| Delivery Milestone and Heralds It in New Ad Campaign | | | |
| Launching Tonight | | | |
| Service Improvement: | | | |
| Coming Soon: Netflix Members Can Instantly Watch Movies | 26-Oct-09 | 0.13*** | 352.55 |
| and TV Episodes Streamed to TVs Via the PlayStation(R)3 | | | |
| Computer Entertainment System | | | |
| Netflix Begins Roll-Out of 2nd Generation Media Player for | 27-Oct-08 | -0.089 | -109.39 |
| Instant Streaming on Windows PCs and Intel Macs | | | |
| Netflix iPad App Available From App Store | 24-Mar-09 | -0.0094* | -22.98 |

Table Shows Cumulative Abnormal Returns and Estimated Dollar Value Effect (millions). Dollar Effect is computer by multiplying the CAR by Netflix's market capitalization prior to the event window (two days before the event)

^{*} Significant at 10% level (1.64) ** Significant at 5% level (1.96) *** Significant at 1% level (2.58)

Table 6 Netflix Competitor Strategy Effects

| 1 8i | | | |
|--|-----------|----------|----------|
| Strategy | Date | CAR | \$ Value |
| Content licensing agreements: | | | |
| Netflix Announces Agreements With CBS and Disney | 23-Sep-08 | -0.16*** | -61.16 |
| Channel to Stream an Array of Current Hit TV Shows at | | | |
| Netflix | | | |
| Netflix and Relativity Media Announce Groundbreaking Deal | 6-Jul-10 | -0.38*** | -12.82 |
| to Stream First Run Theatrical Movies to Netflix Subscribers | | | |
| Product Line Expansion: | | | |
| Netflix Now Offers Subscribers Unlimited Streaming of | 14-Jan-08 | 098** | -42.65 |
| Movies and TV Shows on Their PCs for Same Monthly Fee | | | |

Table Shows Cumulative Abnormal Returns and Estimated Dollar Value Effect (millions). Dollar Effect is computer by multiplying the CAR by Blockbuster's market capitalization prior to the event window (two days before the event)

^{*} Significant at 10% level (1.64) ** Significant at 5% level (1.96) *** Significant at 1% level (2.58)

Chart 1 Netflix and Blockbuster Market Capitalization

