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What are Online Retailers Looking For An Empirical Study of M & A by Online Retailers Short Research Papers

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Abstract: E-commerce has become an important tool for both small and large businesses worldwide and transformed business and industries over the past decades. In this paper, we start from resource-based view and define the two types of M&As of online retailers – online-to-online and online-to-offline M&As. According to RBV, we hypothesize that for internet retailers whose sales are dominantly from online, they are more likely to proceed an online-to-offline M&A than an online-to-online M&A; And for internet retailers whose sales are dominantly from offline, they are more likely to proceed an online-to-online M&A. We will use a sample of online platforms in U.S. to test our hypothesis. Implications for study and future research will be discussed.

Keywords: E-commerce, online-to-online M&A, online-to-offline M&A.

1. INTRODUCTION

E-commerce has become an important tool for both small and large businesses worldwide and transformed business and industries over the past decades (Eisingerich and Kretschmer, 2008). At the macro level, e-commerce represented 13% of total retail sales in 2017 and 49% of the growth in United States (Internet Retailer, 2017). Among emerging economies, China's e-commerce presence continues to expand every year. Its online shopping sales reached \$253 billion in the first half of 2015, accounting for 10% of total Chinese consumer retail sales in that period (Techinasia News, 2016). At the firm level, a growing number of firms begin to start their e-business, as the online market is expected to grow by 56% in 2015–2020, while traditional markets are only expected 2% growth during the same time (Datamonitor Plc, 2012).

As more and more organizations realize the strategic value of e-commerce, more and more businesses jump into the parade of online retailers. For example, Walmart is well-known for its department stores. At the same time, Walmart also develops its e-business and it ranks at top 20 among millions of online retailers (Internet Retailers, 2017). A critical question facing online retailers is how to balance their online capabilities with offline capabilities. Some IRs allocate more resources on the online side, while other IRs focus more on offline side. Advanced online capabilities could provide online retailers with larger group on customer base, reduce information exchange cost and reach the economy of scale (Aufreiter et al., 2001; Amit and Zott, 2001). On the other hand, enhanced offline capabilities could help online retailers to have more branded products, improve their reputation and reach the economy of scope (Capron and Pistre, 2002; Malone et al., 1987; Sahaym et al., 2007).

According to resource-based view, both online and offline capabilities are firm's specific resources which generate from operation routines. These resources cannot be easily accessed from external exchange or developed in a short period. Prior research has argued that M&A is preferred over other types of alliances when firms need to acquire specific resources (Das and Teng, 2000), and complementary acquisitions will improve firm's weakness and create values (Helfat and Peteraf, 2003). However, limited research has studies how online retailers balance their online and offline capabilities through M&As.

In this study, we firstly exam the effect of both online-to-online and online-to-offline M&As on firms'

value. According to RBV, both M&As will positively affect firms' value. We then analyze how online retailers use complementary acquisitions to make their online and offline capabilities compatible and how market would react to that.

The rest of paper is structured as follows. We first discuss the theoretical background, research model and develop our hypotheses. We then present the empirical study and discussion. Finally, we discuss the future work.

2. THEORY AND HYPOTHESIS DEVELOPMENT

2.1 Theoretical Background

We draw from resource-based view (RBV) to develop our theoretical framework. According to RBV theory, the firm's strategic resources are main propellers of firm performance (Barney, 1991; Dierickx and Cool, 1989). While many RBV studies have examined the relationship between organizational resources and firm performance, RBV research also implies that competitive advantages could be created by resource alliance through M&A (Harrison et al., 1991; Hennart and Reddy, 1997). The primary focus of this stream of research has been on strategic resources that can be achieved by M&As.

2.2 Strategic Resources and M&A of E-Commerce: A Resource-Based View

Firms could acquire external resources through exchanges, strategic alliances, mergers, and/or acquisitions. Prior studies have suggested that M&A is preferred over other types of alliances when firms need: (1) to obtain others' resources; and (2) to retain and develop its own resources by combining them with others' resources (Das and Teng, 2000). Since firm-specific resources are usually based on its unique market power, tacit knowledge and unrepeatable characteristics, it is difficult to grasp these capabilities through market exchange contracts or alliances (Chatterjee 1986; Pisano, 1990).

The characteristics of online retailers usually determine the resources that are critical to create competitive advantage and firm value. Unlike traditional retailers who focus on exchanging goods and services at specific locations, the e-commerce leverages the power of Internet to generate electronic marketplace and virtual communities (Hagel, 1999). Online retailers need to manage the strategic resources from both online and offline. For online side, the Internet infrastructures reduce the cost of information exchange (Amit and Zott, 2001), and bring huge online markets and communities. For offline side, the power of huge electronic market cannot be realized through website alone. Online retailers should also have strategic resources such as branded products, efficient supply chain system, bargaining power, etc. These specific resources or capabilities are usually accumulated from firms operating routines and hard to get jumping improvement in a short period. Hence, M&As could be an efficient and effective way to acquire these resources.

In this paper, we use term 'online-to-online' and 'online-to-offline' to distinguish two types of M&As among IRs. "Online-to-online M&A" is the M&A is between IRs and internet related (online) firms, while "Online-to-offline M&A" is the M&A is between IRs and non-internet related (offline) firms. The resource-based view considers mergers and acquisitions as strategic actions to access other firms' resources, which could gather strategically complementary resources to earn competitive advantages (Das and Teng, 2000). Online-to-online M&As would provide internet retailers with larger customer group and enhanced online technology, while online-to-offline M&As could help online retailers to acquire more branded products, improve their reputation, and offline operating efficiency.

2.3. Online-to-Offline VS. Online-to-Online M&A

Online-to-offline M&As provide potential benefits for both sides. For offline side benefits, the Internet can leverage marketing opportunities (Kanter, 2001) and general operational efficiencies (Litan and Rivlin, 2001; Porter, 2001). Significant improvements of online side could enhance the data collection as well as communication between buyer and sellers. Furthermore, sellers could reach more potential customers and

acquire information more conveniently via Internet, which could leverage the traditional business transactions (Amit and Zott, 2001; Bakos, 2001; Park et al., 2004). Offline firms may need the technical skills and managerial personal from IRs to take advantage of Internet technology.

For online side, without the support of products and services, these advantages cannot be realized through a website alone. Even though significant benefits could flow into offline side when doing an online-to-offline acquisition, the resource flows from online side to offline side create additional values in mergers (Capron and Pistre, 2002). Firstly, investing into brick-and-mortar retail could build legitimacy and share reputation and trust of brand enjoyed by the offline firm. Prior research has demonstrated that customers are more willing to pay price premium for branded products than unbranded products (Smith, 2000).

Moreover, online-to-offline M&As generate economy of scope. Communication and coordination costs throughout firm value chain could be largely reduced, hence improving the efficiency of operations (Malone et al., 1987; Sahaym et al., 2007). Offline products could be sold at a lower cost and higher efficiency through online platform. Porter (2001) recommends that online firms develop hybrid value chains will gain higher efficiency and better positioning in the market. Also, value creation usually generates from new products and novel knowledge rather than new business designs (Rindova and Kotha, 2001). Online retailers could internalize these knowledge and products through M&As.

In most cases, the online retailers can also acquire competitive advantages from offline side through online-to-offline acquisition. To acquire unique data of grocery buying habits and patterns which are unavailable from online customers, Amazon acquired Whole Foods in 2017. Business Insider states that the data of Whole Foods are high margin upsell opportunities for Amazon. With this data, it is capable of building analytic models which can predict their grocery buying habits and providing just in time (JIT) services (Forbes, 2017).

Online-to-online M&As are helpful to online retailers to absorb new knowledge, adapt to challenges in a timely manner, as well as generate economy of scale. Rapid changes require online retailers to update their knowledge frequently. However, few online firms could utilize the potential of Internet to improve their market power (Aufreiter et al., 2001). Firstly, developing new technology requires intense investment with high risk. The purpose of online retailers is to use internet leveraging their products, rather than to be a pure technology firm. Secondly, the time compression diseconomies drive online technology converting into tradable commodities (Dierickx and Cool, 1989). M&As are often used to create economies of scale in R&D (Das and Teng, 2000). For instance, Apple.com acquire a lot of technology firms to develop its IOS system.

Furthermore, the value of online retailers will be greater because of economy of scale for information exchange (Amit and Zott, 2001). A larger consumer base will provide additional competitive advantages to online retailers (Amit and Zott, 2001). Larger online platforms, such as Amazon, have more transactions and are more trusted by consumers (Wiseman, 2000). Also, larger online website could easily generate virtual communities and have the power of online word-of-mouth (WOM), which will further help to build customer loyalty. Second, the marginal cost of acquiring data of online consumers gets lower as the customer base becomes larger. Online retailers with larger platform could access to data about consumers' behavior, which would provide huge benefits by understanding their behavior.

In summary, both online-to-online and online-to-offline M&A could create values for online retailers. Online-to-offline M&A could be beneficial to online retailers by constructing reputation, generating economy of scope, and accessing to unique data which could not be acquired from online. Online-to-online M&A could provide online retailers with efficient knowledge adoption and economy of scale. Prior research also suggests that acquisitions of both online firms by offline firms and online firms by other online firms will result in positive returns for acquirer (Uhlenbruck et al., 2006). Hence, here we hypothesize that:

Hypothesis 1: *Both online-to-online and online-to-offline M&A by internet retailers will positively*

affect firm's value.

2.4 Complementarity in M&As of internet retailers

While both online-to-online and online-to-offline M&A might increase firm's value, in this study, we further argue that internet retailers are more intended to proceed complementary M&As, and M&As with complementarity will generate better performances.

Previous research has proposed that complementarity is a critical construct in the resource-based view theory (Barney, 1991). Complementarity enhance the efficiency and effectiveness of firm's operation when a combination of resources or capabilities are different but mutually reinforced (Helfat and Peteraf, 2003). Kim and Finkelstein (2009) define acquisition complementarity as the acquisition that merging firms have different resources, capabilities, and strategies that could generate synergies and create values. This definition focus on the value creation with resource combination. Based on these literatures, we define complementary acquisitions of IRs as the acquisition that could improve the compatibility between online and offline capabilities with the complementary resources existing in merging firms.

According to resource-based view, the online capability and offline capability of online retailers should be compatible. If offline capability is not compatible with online capability, then online retailers might not fully meet consumers' demand, and hence the advantage of large online customer based would be compromised. On the other hand, if online capability is not compatible with offline capability, then the internet retailers have to face the bottleneck of limited market base and bounded online technology. Under such circumstance, M&A with complementarity will mutually reinforce the weakness and enables online retailers to create value that cannot be achieved without such combination (Helfat and Peteraf, 2003).

Complementary M&As bring online retailers with different but desired resources which could make their online and offline capabilities compatible. Complementarity could exist in product strategy and market choice (Kim and Finkelstein, 2009). When the offline capability is relatively weak, complementarity of product strategy might be preferred. The economy of scope suggests that mixed products and services could generate profit growth (Capron et al., 1998). When online retailer merges with an offline firm, they could combine the offline products with other products on the existing platform and generate new kinds of product portfolios (Karim and Mitchell, 2000). The new product mix is usually inimitable by other firms, and hence improves firm's offline capability. For example, the combination between Whole Foods products and Amazon Prime is hard to imitated by competitors so as to improve firm's competitive advantage. In addition, the broader product portfolios that generate from complementary acquisitions could also enhance the online retailers' reputation by sharing the brand with offline companies. For example, Amazon could share private brands of products by Whole Foods, and hence improve its offline side reputation and market status.

On the other hand, When the online capability is relatively weak, complementarity of market choice might be preferred by online retailers. The market complementarity could create firm's value by allowing merging firms to enhance their online capability and explore new markets. The economy of scale suggests that the online-to-online M&As could reduce the cost of information exchange and improve consumer base, which will provide additional competitive advantages to online retailers (Amit and Zott, 2001). The higher efficiency of information exchange and larger customer base improve firm's online capability. Furthermore, in order to explore online market, online retailers need to absorb new technology and knowledge. M&A is a good way to create economies of scale in technology development in a relative short time.

Hypothesis 2a: *For internet retailers whose sales are dominantly from online, they are more likely to proceed an online-to-offline M&A than an online-to-online M&A.*

Hypothesis 2b: *For internet retailers whose sales are dominantly from offline, they are more likely to proceed an online-to-online M&A than an online-to-offline M&A.*

Even though both online-to-online and online-to-offline M&As might positively affect firm's value, in this paper, we argue that M&As with complementarity tends to have higher abnormal returns. The online capability and offline capability of online retailers should be compatible so that the combination could generate the efficiency and effectiveness. It is true that acquisitions other than complementarity can also have abnormal returns and enhance firm's capability. However, this group of acquisitions are more likely to be add brilliance into firm's present splendor, while complementary acquisitions could provide timely enhancement and significantly improve the weakness part of internet retailers. Hence, we hypothesize that:

***Hypothesis 3a:** For internet retailers whose sales dominantly are from online, abnormal returns will be greater if they proceed an online-to-offline M&A than an online-to-online M&A.*

***Hypothesis 3b:** For internet retailers whose sales dominantly are from offline, abnormal returns will be greater if they proceed an online-to-online M&A than an online-to-offline M&A.*

3. METHODS

3.1 Sample and data collection

Our data for this research was combined from three primary resources, Internet Retailers, SDC Platinum, and COMPUSTAT. We test our hypotheses with a sample of M&As by online retailers from 2005 to 2008.

3.2 Dependent variables

The hypotheses included two dependent variables: The choice of M&A between online-to-online and online-to-offline and stock market performance. A variable called M&A type was coded as a 1 for online-to-online M&A, and as a 0 for online-to-offline M&As. If the target is an online retailer, the M&A is online-to-online; if the target is not an online retailer, the M&A belongs to online-to-offline. No firms were a hybrid of the two alternatives. Second, stock market performance was the stock market returns associated with the restructuring announcement. We measured stock market return using the standard event study methodology, whereby a cumulative abnormal return (CAR) was computed for the days surrounding the restructuring announcement. The standard event study approach estimates a market model for each firm and then calculates a cumulative abnormal return for the event. Specifically, the CARs were estimated using the following equation:

$$AR_{it} = R_{it} - (a_i + b_i R_{mt})$$

where a_i and b_i are the ordinary least squares (OLS) parameter estimates obtained for the regression of R_{it} on R_{mt} over an estimation period (T) preceding the event; AR_{it} is daily abnormal returns, R_{it} is the rate of return on the share price of firm i on day t ; and R_{mt} is the rate of return on the S&P 500 on day t . The parameter estimates were based on an estimation period of 150 days (-180 to -30) before the restructuring announcement. Abnormal returns were cumulated over the two-day window (day 0 is the announcement business day, +1 is the next business day) surrounding the announcement date. Stock market data were found in the WRDS database.

3.3 Independent variables

The independent variable in this paper is the percentage of online sales over total sales. According to our argument, complementary M&As bring online retailers with different but desired resources which could make their online and offline capabilities compatible. Hence, the percentage could reflect firm's strength or weakness between online and offline.

3.4 Control variables

Several factors other than the percentage of online sales over total sales could influence the regression results. including the financial performance and leverage, the size of the firm, prior M&A experience, year effects, and online retailer types (e.g., Khan and Mehta, 1996).

Financial performance was the acquirer's return on assets (ROA) and the leverage is measured by debt to

equity ratio. Acquirer's size was measured as the log number of the employees. Prior M&A experience may affect the M&A decision after. Hence, we control for the number of M&A in the prior year. Finally, we controlled for year effects and online retailer types.

4. FUTURE RESEARCH AND WORK

This study has following limitations. First, although we define the online-to-online M&As and online-to-offline M&As, there still might be other types of alliances that are missing. Future research could think of more types of alliance for online retailers.

Second, our analysis in this paper only focuses on the theory part of making complementary M&As. In the next step, we would like to examine the market reaction to these M&As, such as abnormal returns (e.g., AR and CAR). In addition, we would also like to test the market reaction for different types of online retailers.

Third, our samples are limited to large and public online platforms in U.S.; whether our results can be generalized to private firms or the firms in other countries deserves further examination.

Fourth, the number of observations of our research is limited. We are trying to collect data from more resources to enlarge our observations in the future work.

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