THE PENNSYLVANIA STATE UNIVERSITY
SCHREYER HONORS COLLEGE

DEPARTMENT OF FINANCE

A FINANCIAL AND LOGISTICAL ANALYSIS OF THE MERGER BETWEEN KNIGHT TRANSPORATION AND SWIFT TRANSPORTATION

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SPRING 2020

A thesis
submitted in partial fulfillment
of the requirements
for a baccalaureate degree
in Finance
with honors in Finance

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ABSTRACT

The transportation industry is transitioning as the M&A landscape is encouraging megadeals between prominent trucking players. This shift is inviting M&A activity between truckload companies rather than typical acquisitions in the small parcel and LTL sector. Such unprecedented M&A activity is disrupting the industry as major billion-dollar mega companies are forming in the truckload sector. Financial analysis typically occurs as the primary approach for analyzing M&A deals. However, due to the reliance of network integration in the trucking industry, logistical analysis is critical for M&A analysis in this field.

With application of the merger between Knight Transportation and Swift Transportation, this thesis evaluates typical financial analysis and its ability to realize synergies of M&A deal between truckload companies. This thesis also provides a logistics analysis framework detailing steps for analyzing network synergies ranging from the supplier base to shareholders' approval. Through both logistical and financial lenses, this thesis develops methodology for analyzing unprecedented M&A activity in the truckload sector of the transportation industry.

By applying the designed logistics framework to the merger between Knight Transportation and Swift Transportation, the thesis concludes logistical success of the specified truckload deal as it optimizes network routes through capitalization of network synergies. Coupled with improved financial metrics in comparison to its' current competitors, Knight Swift Transportation realizes both financial and logistical synergies through unprecedented M&A activity. However, further analysis of Knight Swift Transportation's logistical network over the next five years is imperative to conclude overall success of network integration.

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ACKNOWLEDGEMENTS

Dr. Novack,

for your support, guidance, and office hour cookies. Thank you for *almost* converting me into a supply chain girl. But most importantly, the utmost gratitude for turning me into *the* trucker girl.

Dr. Davis,

for you kindness and encouragement. As you know, finance was never a passion, just a checkbox; however, you gave me the tools and direction I needed to further my career and I am forever thankful.

Mom,

for being my mom. Thank you for fighting with seventeen-year-old me to apply to Schreyer. I wouldn't be here without you.

Dad,

for your constant dedication and passion in all of my endeavors. Thank you for pushing me to be the best version of myself.

Adam,

for allowing me to be the one and only golden child.

Chapter 1

Introduction

Merger and acquisition (M&A) activity, like other prominent business decisions, ebbs and flows with economic success. The current strength of the U.S. economic market reflects similar momentum in M&A activity. The years between 2014 to 2018 marks the most robust period of M&A activity in U.S. history (D'Angelo, 2019). However, similar to the current U.S. economy, the preceding and two subsequent economic quarters mark a critical period and possible turning point for such stability. Specifically, the genetic makeup of the M&A landscape sparks transformation. Historically, deal volume depicts M&A activity growth. Today, a shift from volume to deal size begins to spark a change in M&A analysis as megadeals drive M&A growth.

In the transportation and logistics (T&L) industry, the trend of fewer deals and larger megadeals is significant. In this industry, the motor carrier and logistics subsector dominates. Within the motor carrier subsector, carriers are often segmented into small package, less than truckload, and truckload operations. Most M&A activity occurs between companies focused on small package and less than truckload transportation. However, on April 7, 2017, Knight Transportation and Swift Transportation agreed to merge, identifying one of the most prominent truckload megadeals to date.

This thesis will first focus on the financial valuation of the merger. An analysis of Knight Transportation's and Swift Transportation's pre-merger financials will be completed to understand motives for such M&A activity. Financial ratio analysis will help explain the financial incentives of this megadeal between two truckload carriers.

Further, analysis of the logistical motives of a merger is critical when discussing two motor carrier companies. This thesis will analyze the consolidation of Knight Transportation's new supply chain post-merger to identify from a logistical perspective, what incentives and synergies were achieved in this megadeal. Such analysis will create a step by step framework for realizing logistical synergies which aid future truckload carrier M&A analysis.

This thesis will first analyze the current merger and acquisition environment and then focus specifically on the demographics and motivations of M&A activity in the motor carrier industry. The subsequent two chapters will contain a financial ratio analysis and a logistical analysis. Finally, a conclusive chapter will provide methodologies from this analysis to aid future truckload M&A activity in the motor carrier industry.

Chapter 2

Mergers and Acquisitions: Current Trends and Applications to the Trucking and Logistics Industry

In order to analyze the merger of Knight-Swift Transportation, it is critical to understand today's M&A environment and the drivers of current M&A activity. In order to conclude the synergies and successes of this deal, a general understanding of industry classifications and a review of precedented and influential M&A activity within the industry is crucial. Analysis of such requirements is provided below.

Current Merger and Acquisition Environment

M&A activity has been classified into seven waves throughout history. Each wave carries its own unique characteristics in which governmental, economic, and business motivations shape the M&A activity and growth within the period. Figure 2-1 delineates the timing of the seven waves throughout U.S. history.

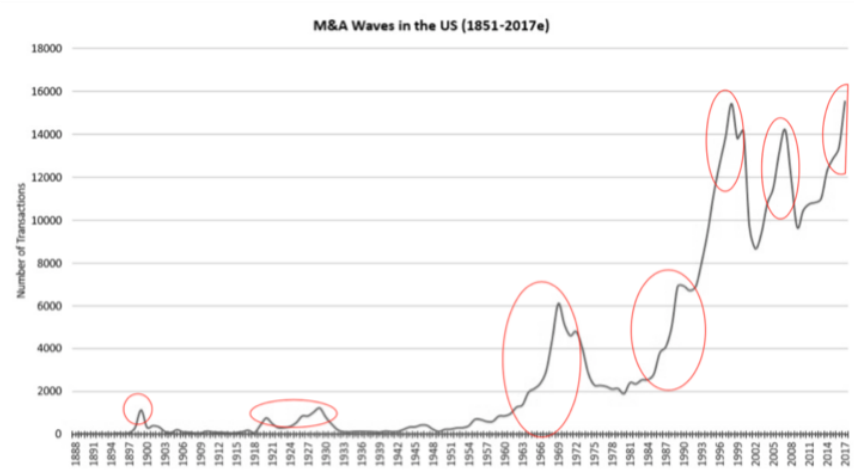


Figure 2-1: M&A Waves Throughout U.S. History

Source: Ani Greenspan, 2019

M&A activity in the U.S. from 2013 to date is characterized as the Seventh Wave. The Seventh Wave represents a period of increasing transactional value of M&A activity after the recession of 2009. A 2015 analysis conducted by OFI Asset Management suggests business portfolio transformation, tax optimization, reorganization of growing industries, and heightened cross border operations are the current drivers of the Seventh Wave (Cretin et al, 2015).

The Seventh Wave also carries attributes of increasing megadeals. Quarter one of 2019 marked the strongest start to date since the millennium with 927 billion dollars in deals (Bullock, 2019). In the last year, transaction volume has dropped by thirty-three percent despite the increase of overall transactional value. Growth within the M&A sector has been driven by deals over ten billion dollars (Bullock, 2019).

Speculators surmise that the decline in transaction volume is representative of weakening CEO consumer confidence and a looming recession (Bullock, 2019). However, Bob Saada, leader of U.S. Deals at PwC, forecasts poised behavior and steady increases in M&A activity for the remainder of 2019 despite recession fears, due to the transactional value of current megadeals. The changing M&A landscape alludes to a potential decline in transactional value and M&A growth, marking a potential end of the Seventh Wave. However, the question surrounding the timing of such economic uncertainty and M&A stagnancy remains.

Current Merger and Acquisition Trends Within the Trucking and Logistics Industry

M&A activity within the motor carrier industry as a whole is demonstrative of the current trends and movements of the overall M&A environment. Quarter two of 2019 saw M&A deal value within the trucking and logistics (T&L) sector increase thirty-four percent from the preceding quarter. Analysis of M&A activity in the T&L sector by PwC U.S. Transportation Deal Leaders, attribute such growth to the thirty-six percent increase in average transactional value (Chapman et al, 2019). Evidence of megadeals driving M&A growth despite volume decreases is consistent within the sector. The second half of 2018 reported a twenty-three percent decrease in deal volume in the T&L sector, marking the smallest transactional volume exhibited in the industry since 2013. However, overall M&A transactional value within the industry remained stable (Ng et al, 2018)

Subsectors of the Trucking Industry: Motor Carrier Classification and M&A Analysis

As of May 2019, the trucking industry is comprised of 892,078 for hire carriers and serves a 797-billion-dollar market ("Reports, Trends & Statistics", 2019). Within this industry, motor carriers are often classified by their freight hauling characteristics. Three major classifications include truckload, less than truckload, and small parcel. Due to the complexity of the trucking industry, varying network requirements for each classification allow M&A activity to flourish more frequently in some subsectors.

Truckload Carriers

TL carriers typically transport full truckloads of freight in a point-to-point operation, in which freight is hauled directly from source of origin to destination (Campbell 248, 2005). Suppliers with inventory shipments of 20,000 pounds or twenty pallets worth of goods often utilize TL carriers (Weakly, 2019). Consolidation of multiple shipments is typically not required, allowing TL carriers to be rather independent operations in comparison to that of less than truckload.

Truckload (TL) carriers comprise eighty-six percent of the 797-billion-dollar trucking industry (Bokher, 2018). As of 2019, Knight-Swift Transportation, Landstar System, and J.B. Hunt Transport Services Inc. serve as the top three TL carriers, leading the subsector in revenue ("2019 Top Truckload").

The TL segment is comprised of 35,500 carriers ("Truckload Carriers Industry Profile"). Though the TL subsector contains a plethora of carriers, revenue and fleet asset size are not consistent throughout the industry. As of 2018, eleven carriers are classified as billion-dollar operations, leaving over 35,000 carriers to be smaller fleet operations. The top twenty-five carriers represent 31.9 billion of the truckload subsector's total revenue for 2018 (Hazelrigg, 2019). Figure 2-2 delineates the distribution of market share by revenue of these top twenty-five carriers.

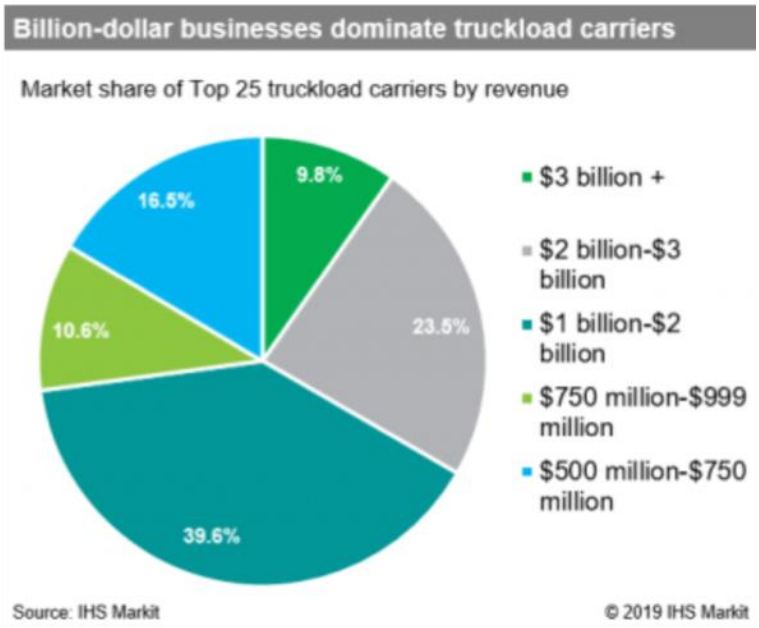


Figure 2-2: Market Share of Top 25 Truckload Carriers by Revenue

The unique distribution of fleet sizes between the top twenty-five carriers is demonstrative of the revenue and market share distribution of the truckload subsector as a whole. The Top 25 carriers represent a fraction of the TL sector, as the industry is dominated by small asset-based carriers (Hazzelrigg, 2019). With thousands of companies in the truckload sector, 91.3 percent of carriers operate six or fewer trucks ("Reports, Trends & Statistics", 2019). Due to the small asset base of most carriers, a steady flow of entry and exit in the industry is commonplace. M&A activity between truckload carriers is rather stagnant due to the limited synergies that are achievable between small asset-based carriers.

Historically, the limited barriers to entry of the TL subsector allowed major players in the industry to survive without a need to explore M&A activity to reach their capacity requirements and small carrier bankruptcies to occur regularly. Economies of scale and substantial market

share similar to that in other subsectors of the trucking industry were not seen possible. However, today, a paradigm shift is beginning to form surrounding the possibilities of gaining market share and achieving economies of scale sparking M&A activity between truckload carriers (Lockridge, 2017). With the recent flux of bankruptcy in small carrier operations, large carrier fleets now have the capability to gain price control in the market (Smith, 2019).

Less than Truckload Carriers

Less than truckload (LTL) carriers optimize truckload capacity by combining several small shipments into one vehicle load. Freight shipped in LTL operations often weighs less than 10,000 pounds and uses a maximized space of six pallet spaces (Weakly, 2019). Unlike TL operations, LTL carriers often route shipments to utilize networks of end-of-line and break-bulk terminals, in which small shipments can be sorted, allocated and routed to eventually reach their end destination. Use of networks and break-bulk terminals is critical to achieve efficiency in LTL carrier operations.

The LTL subsector contains the largest number of carriers in the motor carrier industry (Campbell 247, 2005). FedEx Freight, Old Dominion Freight Line, and XPO Logistics dominate the LTL subsector. Unlike TL, LTL is dominated by the top carriers in the subsector. In 2017, total revenue for the LTL subsector totaled 37.7 billion, with the top twenty-five carriers contributing to 91.4 percent of the total industry revenue (“Top 25 Truckload and LTL Carriers”, 2018).

Prior to 2017, M&A activity was most prevalent within the LTL sector due to the deregulatory environment of the industry created by the Motor Carrier Act of 1980. M&A deals within the LTL sector were typically performed to create synergies through duplicate terminal reduction, load consolidation, and achieving economies of scale (Daihes, 2019). However, today, Lana Batts, partner at Transport Capital, confirms that the time for M&A activity in this subsector is dissipating as the LTL market is now served by several national players and a handful of very strong regional carriers (Lockridge, 2017).

Small Parcel Carriers

Small parcel transportation is very similar to that of LTL. However, small parcel often has stricter demands of delivery (i.e. overnight delivery) as freight specialization is commonplace (Campbell 246, 2005). Parcel shipments have the following general requirements for freight in this classification:

- Packages that weigh less than 150 pounds.
- Packages that have a combined length and girth measurement of less than 165 inches (Weakly, 2019).

M&A activity between small parcel carriers is representative to that of LTL in terms of deregulation. The small parcel subsector was highly lucrative in deals and consolidation prior to 2015 and such volume has since dissipated. Typically, M&A in this subsector allows small parcel companies to break into new markets such as LTL by expanding fleet capabilities and creating new product offerings such as overnight shipping.

Currently, consolidation of this subsector has created a highly concentrated environment in which FedEx and UPS hold a duopoly in the U.S., as the two companies together hold eighty to eighty-five percent of the market (Spend Management Team, 2019). The high concentration of the market helps the subsector remain profitable. (Haber, 2015). Within the U.S., M&A activity is seen predominately between the two large market holders composing deals with small regional players. However, introduction of in-house logistics services from e-commerce providers (i.e. Amazon, Alibaba, etc.) may affect the future M&A environment between small parcel carriers (Spend Management Team, 2019).

Historical M&A Analysis Within the Motor Carrier Industry

M&A deals have occurred within the motor carrier industry to explore expansion into new carrier transportation and global territories, to serve as a last-ditch effort in times of bankruptcy, and to increase market share within the less than truckload and small parcel subsectors. Analysis of notable M&A activity is explored below.

FedEx's Series of Acquisitions

Entrance into New Motor Carrier Subsectors: In 1998, FedEx acquired Caliber Systems for 2.4 billion dollars with the goal of expanding its portfolio of services (New York Times News Service, 1997). The deal allowed FedEx to be in competition with UPS as FedEx's new service offerings ranged from air freight transportation to local package delivery. Today, the service offerings from this acquisition represent the majority of FedEx's portfolio with FedEx Ground, FedEx Freight, FedEx SupplyChain Systems, FedEx Services, and FedEx Custom

Critical (“Investor Relations”, 2019). The creation of new transportation services allowed FedEx to compete as a truckload, less than truckload, and small parcel carrier. The acquisition of Caliber Systems represents the use of M&A activity in the transportation industry to expand across segmented motor carrier classifications.

Global Expansion: Since 2006, FedEx has acquired companies such as ANC Holdings Limited, AFL Private Limited, Unifreight India Private Limited, Rapidão Cometa, Supaswift, TATEX, Manton Air-Sea Pty Limited, Cargex S.A., and Flying Cargo Group in an effort to globalize their business across the following five regions: Asia Pacific, Europe, Canada, Middle East, Indian Subcontinent, and Africa (MEISA), and Latin America, Caribbean (LAC) (“Investor Relations”, 2019). Such acquisitions represent the ability for large companies to seek revenue synergies through global expansion. Acquiring preexisting companies rather than entering into a new territory blind allows companies to reap the benefits of preexisting logistical operations and network terminals within the region.

Consolidated Freightways’ Bankruptcy and Subsidiary Acquisitions

Bankruptcy – Last-Ditch Efforts: In the early 2000s, Consolidated Freightways (CF) served as the third largest trucking company in the industry. Despite the size of this national freight carrier, CF reported a series of quarterly losses in 2001 and 2002. On September 3, 2002, CF filed for Chapter 11 Bankruptcy (The Associated Press, 2002). As 15,500 employees were laid off, two subsidiaries of CF remained intact: CF AirFreight and Canadian Freightways. In an effort to reap the potential synergies form the bankruptcy, TransForce acquired Canadian Freightways for 69.6 million dollars (“TransForce Acquires Canadian Freightways”, 2003). As

Canadian Freightways served as one of the profitable subsectors of the Consolidated Freightways fleet, TransForce took advantage of the bankruptcy of the parent company by obtaining a profitable subsector to increase its less than truckload operations. M&A activity in times of bankruptcy is seen across all subsectors in the trucking industry.

Yellow Corporation and Roadway Corporation

Seeking Market Share within LTL: 2003 marked a time of extreme turnover for the motor carrier industry. Gregory Burns, transportation analyst of JP Morgan, described the trucking industry as excess with capacity and physical capital (terminals and trucks) and stressed synergy optimization through overlapping operations and cutting capacity (Deutsch, 2003). Change was critical as the heavily concentrated LTL subsector struggled for profitability. In summer of 2003, Yellow Corporation, the second largest LTL carrier, agreed to acquire Roadway Corporation, the industry leader for a forty-nine percent premium (Machalaba, 2003). This 966-million-dollar acquisition marked the largest M&A deal ever performed within the motor carrier industry at this time creating a six billion-dollar LTL carrier giant (Schulz, 2003). Analysts acclaimed this acquisition for condensing an overpopulated industry lacking profitability (Deutsch, 2003). Yellow Roadway Corporation saw synergies of 100 million dollars in its first year succeeding the acquisition through implementation of network best practices and backroom functions while paying down 200 million dollars in debt (“Yellow Roadway Corporation”, 2004). This robust acquisition marked a turning point in the LTL subsector with a few companies owning high market share as the Yellow Roadway Corporation now owned fifty-eight percent of the market for long-haul less than truckload shipments (Deutsch, 2003).

Knight Transportation and Swift Transportation

Unlike FedEx's series of acquisitions to expand into new markets or Trans Force's acquisition of Canada Freightways in a time bankruptcy, the merger between Knight Transportation and Swift Transportation is a horizontal merger within the truckload sector. As both companies have a strong national presence and are in reputable financial shape, the rationale for this deal is unprecedent. Further analysis in the following chapters aims to conclude what factors drove the Knight-Swift Transportation merger to occur.

Chapter 3

Financial Ratio Analysis

This chapter will examine the financials of both Knight Transportation (KNX) and Swift Transportation to determine what financial motivations encouraged Knight and Swift to enter into an amiable merger. This chapter will also describe the methodology for such analysis and will explain the use of specific ratios completed in the financial analysis. This approach will use quantitative factors to determine what financial motivations encouraged Knight and Swift to embark on the first horizontal merger within the truckload sector of the transportation industry. Finally, this chapter will compare Knight Swift Transportation and Martin Transportation to evaluate the financial effectiveness of the merger to a top performing competitor in the refrigerated truckload transportation industry.

Methodology

Traditional methodology when analyzing financial effectiveness of mergers typically uses ratio analysis to compare efficiency pre-and post-M&A activity. However, ratios and metrics for determining if a deal is accretive post-merger differ from specific ratios used when analyzing why two companies decided to conduct M&A activity in an unprecedented subsector of an industry. Thus, the following financial analysis focuses on four categories of ratios: profitability, liquidity, debt management, and asset management. While asset management is of lesser importance in the trucking industry versus the consumer good industry, it is still crucial to evaluate the efficiency of asset management in relation to the competitors of the merged company. It is important to note that financial metrics are not the sole determining factor when

determining the rationale for M&A activity; Chapter 4 will discuss other justifications specifically focusing on logistical analysis.

In order to analyze the effect of Knight Swift Transportation's M&A activity within the refrigerated truckload subsector, it is crucial to compare the financial fluidity and stability of the company to the next largest public refrigerated truckload transporter. Marten Transport has been identified as a key competitor in the refrigerated truckload subsector of the transportation industry. Thus, ratio analysis will be performed between Knight Swift Transportation and Marten Transport, following the same template as the financial investigation of the pre- and post-Knight Swift merger.

Financial data used in the following ratio analysis is collected from publicly sourced data. Review of press releases prior to the merger from both Knight and Swift Transportation helps analyze C-suite and upper management rationale for the merger. Such motivations help identify central focus points and metrics when creating a template for ratio analysis.

Upper Management Rationale

When analyzing Knight Transportation and Swift Transportation comparatively, size differentiation between the two companies is paramount. As the merger was not a joining of two equals, questions arose when Knight Transportation, the smaller company's management team, planned to take control of managerial authority. However, Swift's founder, Jerry Moyes, commented on such ambiguity and has assured that Knight's best practices will be applied to the merged company. Further, as the Knight family helped Moyes create Swift Transportation prior

to the inception of Knight Transportation, the best practices from the industry leader in growth and profitability root from the foundation of the Knight Transportation management team and will be passed to the new industry dominating, Knight Swift Transportation (Price, 2017). The following analysis will determine if such motives for the deal are demonstrative in the merged company's financials.

Profitability Metrics

Knight Transportation and Swift Transportation are two of the most prominent and successful truckload fleet operators. In a 2015 press release, Jerry Moyes accredited Knight as the leader of productivity in truckload operations. With upcoming M&A activity in which Knight Transportation has the jurisdiction to take over managerial control, one would expect most, if not all, productivity margins to increase dramatically. However, according to results in Figure 3-1, the merger brought negative changes to both ROI and EBITDA margins of -59.57 and -42.06 percent, respectively.

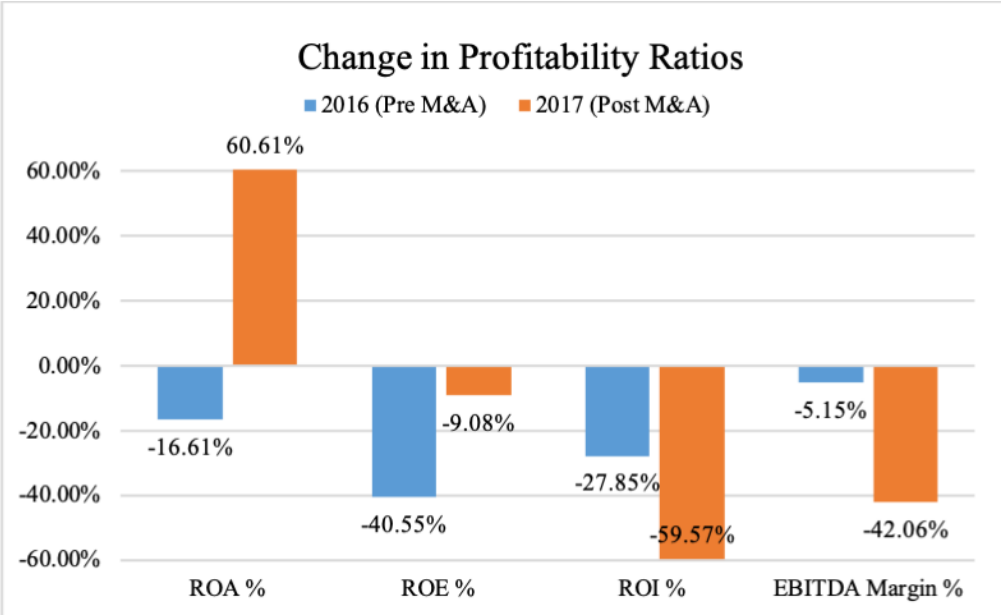


Figure 3-1: Changes in Profitability Ratios

Source: Annual 10-K Statements, 2016-2017

As ROI measures the effectiveness of a company to generate profit based upon new investments, it is not surprising that new investments may have not recognized synergies within the first-year post-merger. As managerial change and a variety of other factors including integration of internal systems are being adjusted to find cohesiveness within the new merged company, such a decrease in ROI may not be of dire concern. However, analysis of the volatility of ROI will need to be monitored as the merged company continues to function in the future.

Evident in Figure 3-1, EBITDA margin also fell dramatically in the first-year post-M&A activity. However, as EBIT and operating income are synonymous for on another, Figure 3-2 sheds light on what currently looks like an unsuccessful merger in terms of financial improvements. Figure 3-2 shows the changes in revenue, gross profit and operating income for Knight Swift Transportation for the first full fiscal year post-merger (2018).

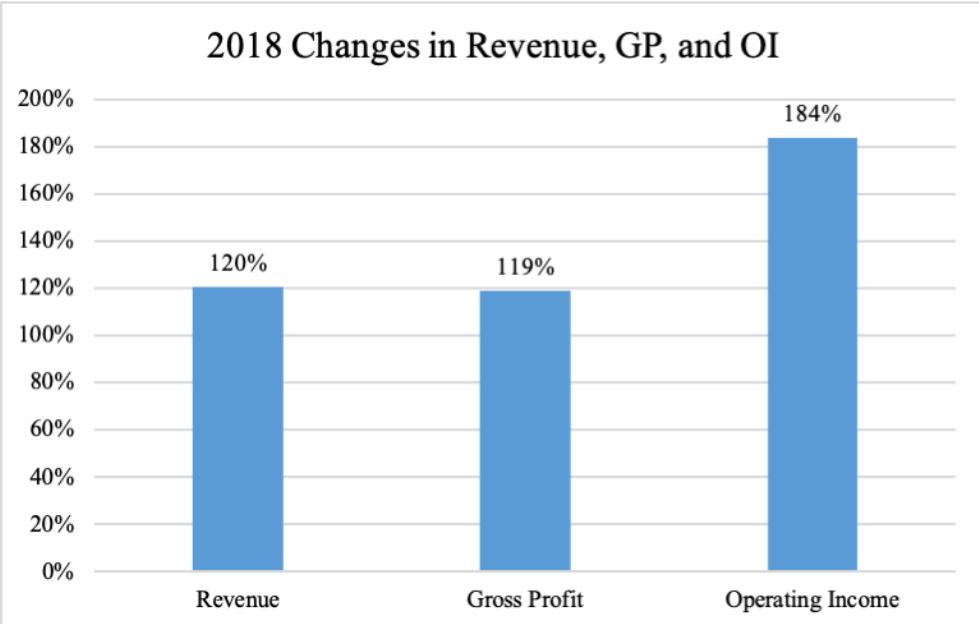


Figure 3-2: 2018 Changes in Revenue, GP, and OI

Source: Annual 10-K Statements, 2018

Despite extreme declines in most profitability ratios in 2017, 2018 margins represent extreme growth and financial solvency for the newly merged company. Such data suggests that revenue and cost synergies achieved through M&A activity are not immediate and demonstrate a need to continue monitorization of Knight Swift Transportation through the next three years to identify the complete financial synopsis post-merger. However, the 2018 data confirms that profitability through both revenue and cost synergies from Knight's managerial takeover demonstrate financial success post-merger despite wary margins in 2017.

Debt and Liquidity Management

Prior to M&A activity in spring of 2017, Swift Transportation's and Knight Transportation's leverage positions varied greatly, as Knight Transportation was composed of almost all equity. In 2016, Knight's long-term debt to equity and total debt to equity ratios both equated 0.02. Juxtaposed, Swift's leverage positions totaled 1.58 and 1.70, respectively. As the varying debt to equity (D/E) ratios delineate, Knight's operations were funded almost entirely through internal funds in comparison to Swift's. Thus, Swift's higher D/E ratios implied less of an ability for shareholder equity to cover debt during times of financial difficulty.

In order to compare the effects of the merger on the firm's leverage position, averages of both Knight's and Swift's leverage ratios have been computed for 2016 and compared to the new merged company's in 2017. Figure 3-3 delineates the changes in leverage ratios pre- and post-merger.

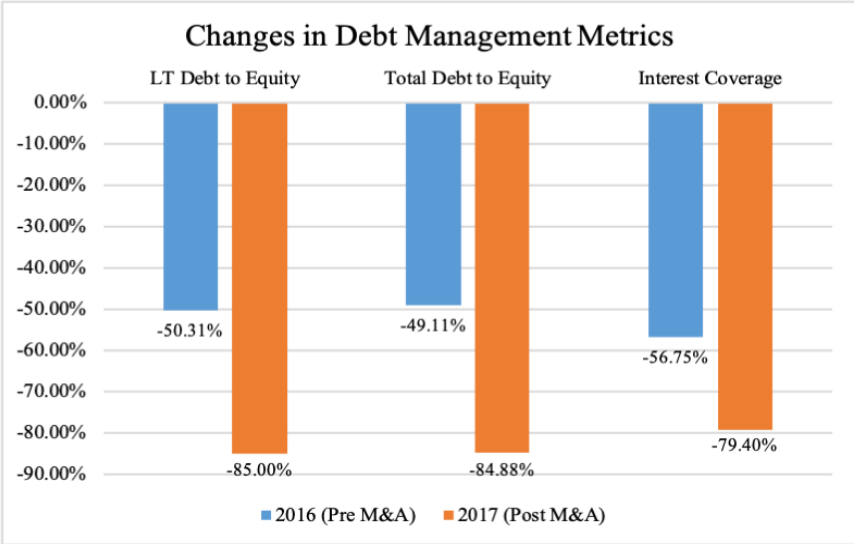


Figure 3-3: Changes in Debt Management Metrics

Source: Annual 10-K Statements, 2016-2017

As evident in the figure above, M&A activity dramatically reduced Knight's and Swift's averaged leverage ratio. These changes post-merger represent a dramatic decrease in leverage throughout the company as seen through three separate metrics. Thus, Knight Swift Transportation greatly benefited through the merger in terms of debt management as the firm is now less leveraged, representing a decreased risk for shareholders. The firm currently has a long-term debt to equity and total debt to ratio of 0.12 and 0.13, respectively; such metrics highlight Knight's management team's success in operating without a need to raise capital, minimizing risk for investors.

Similar to leverage positions, the effectiveness of liquidity management within a company is crucial to monitor during all stages of M&A activity. Figure 3-4 analyzes the changes in liquidity ratios over the course of the merger.

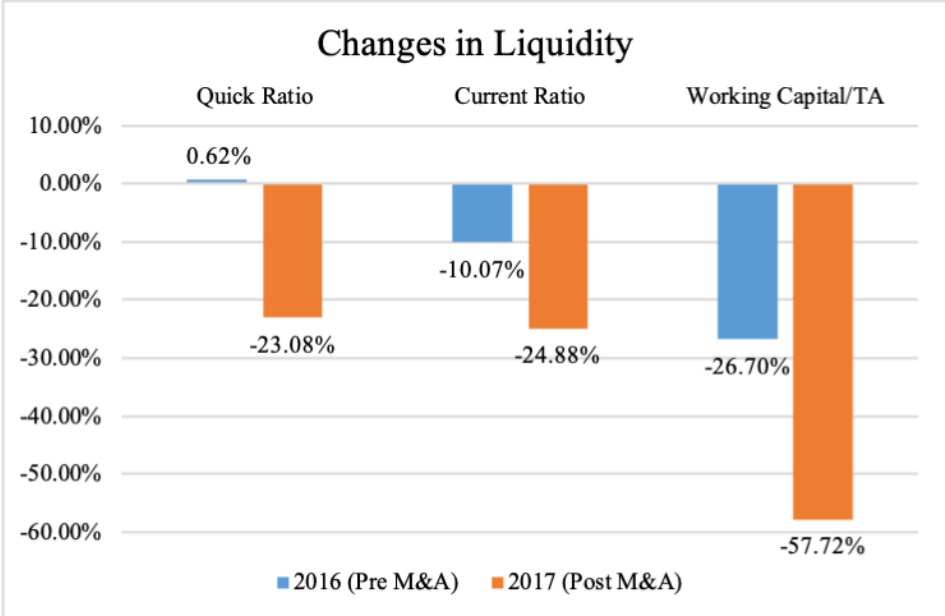


Figure 3-4: Changes in Liquidity

Source: Annual 10-K Statements, 2016-2017

Prior to the merger, both Knight Transportation and Swift Transportation held strong quick ratios, 1.82 and 1.43, respectively, representing their abilities to fully pay their current liabilities with their assets. Post-merger, the quick ratio of the new merged company fell slightly to 1.25. It is important to note that a ratio of one is considered a "normal quick ratio;" thus, despite a decline in the quick ratio post-merger, Knight Swift Transportation has a supreme quick ratio in comparison to standard financial practices. However, it is paramount to note such decline when comparing liquidity metrics pre- and post-merger. Similarly, the current ratio of the firm saw a -24.88 percent decline post-merger. In comparison to industry standards, the decreased liquidity ratios of the firm are still supreme; the quick ratio and working capital over total assets ratio have a transportation industry standard of 0.34 and 0.84, respectively ("Transportation Sector Strength," 2019). Additionally, due to the lack of leverage in the firm, concern with declining quick and current ratios are trivial. Therefore, liquidity management in terms of M&A analysis still exceeds industry standards. However, liquidity and debt management can be negated when determining rationale for unprecedented M&A activity within the truckload subsector of the transportation industry.

Asset Management

Analysis of asset management for a trucking company, specifically one in the truckload subsector can seem unnecessary due to the unique small asset base of such companies. However, as both Knight and Swift are two truckload companies, it is important to comparatively review the management of such assets pre- and post-merger to confirm if synergies are achieved through

improved asset management. Figure 3-5 displays the changes in various asset turnover ratios pre- and post- merger.

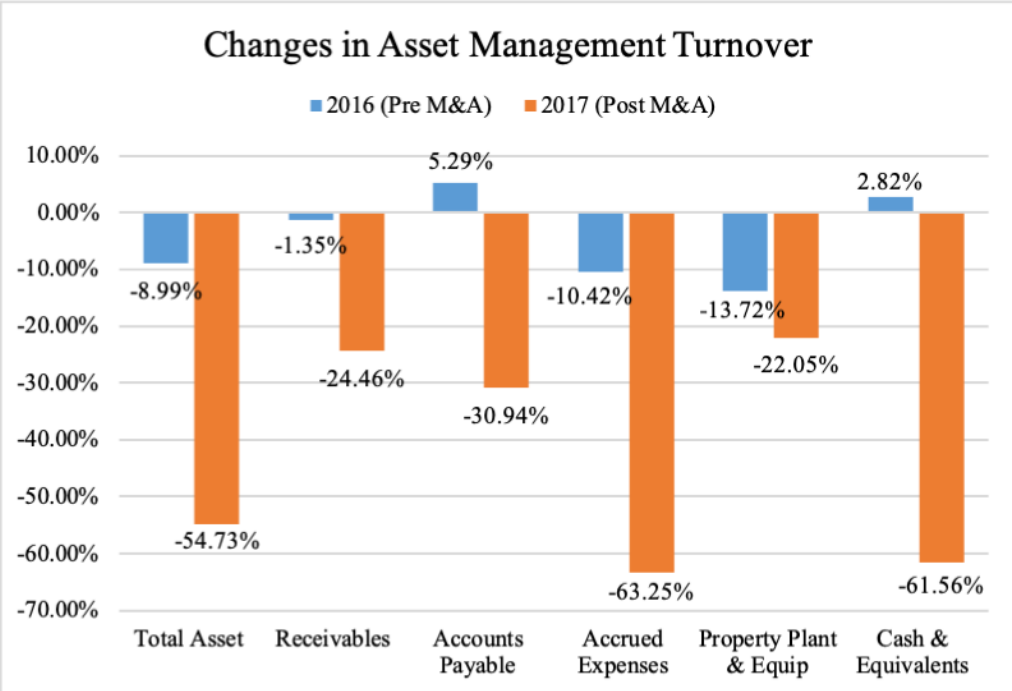


Figure 3-5: Changes in Asset Management

Source: Annual 10-K Statement, 2016-2017

As a whole, effectiveness of asset management decreased significantly post-merger. Receivables and accounts payable ratios clearly delineate inefficiencies in financial accounting within the company. Though such inefficiencies could be attributed to integration of new internal systems, analysis of such asset ratios will need to be further monitored as significant decreases allude to the lack of financial efficiency in the company.

It is important to note that the decline cash and equivalents turnover is not necessarily a negative change. A high cash and equivalents turnover can allude to efficiency in cash spending; yet, it can also allude to the lack of cash within the business and a need for potential financing in the future. Since figure 3-5 displays the change in turnover ratios pre- and post-merger, the inability to replenish cash through revenue could be attributed to cash financing to resolve internal integration of the two firms. Yet, analysis of such turnover ratios will need to be monitored over the new managerial period of the company.

Addressing Concerns through Competitor Comparisons

This financial analysis concludes with a few areas of weaknesses surrounding Knight Swift's financials post-merger. Asset management demonstrates extreme decline in all six metrics used to define stability in asset turnover. However, when compared to Marten Transport, the top public competitor in the subsector, Knight Swift demonstrates success in this area. Figure 3-6 delineates positive improvements in asset management one-year post-merger in comparison to Marten Transport. Additionally, it is important to note that the data used in Figure 3-6 represents changes in turnover ratios for 2018. Such improvement in metrics in comparison to Knight Swift's decline in turnover ratios for 2017 allude to positive synergies being realized post-merger as time progresses.

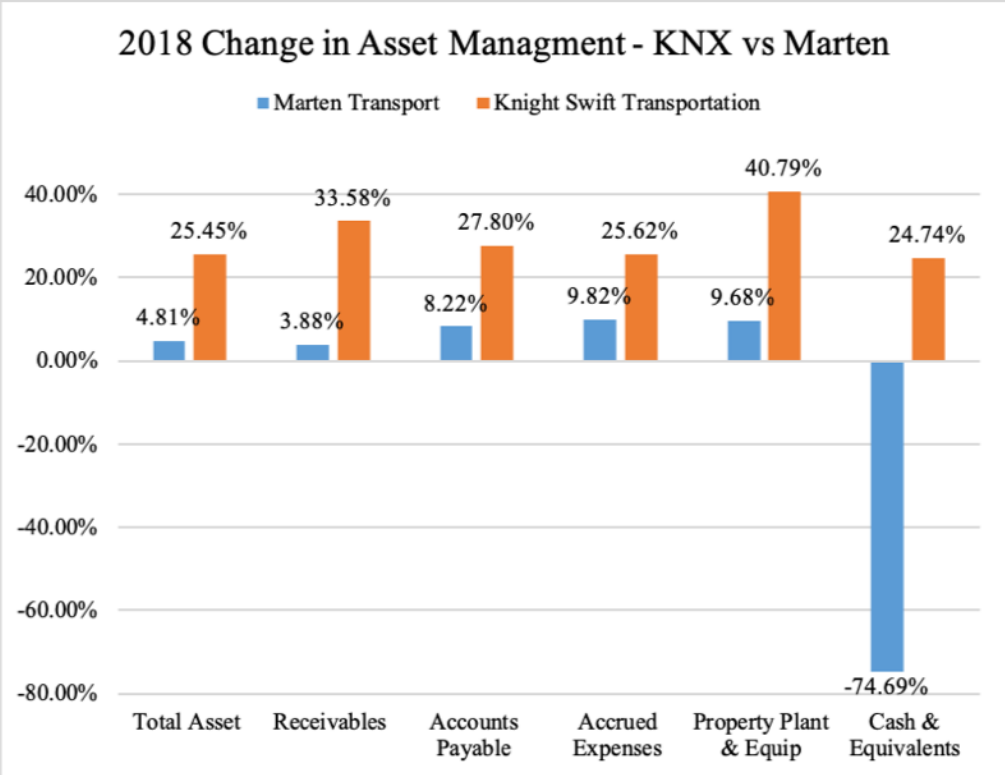


Figure 3-6: 2018 Change in Asset Management

Source: Annual 10-K Statements, 2018

Knight Swift Transportation also showed areas of weakness in profitability metrics post-merger. Specifically, Figure 3-1 delineated notable decreases in changes in ROI and EBITDA margin. However, Figure 3-7 shows distinguishable growth of these metrics in 2018 in comparison to Martin Transportation, reducing concern for internal mismanagement of Knight Swift Transportation.

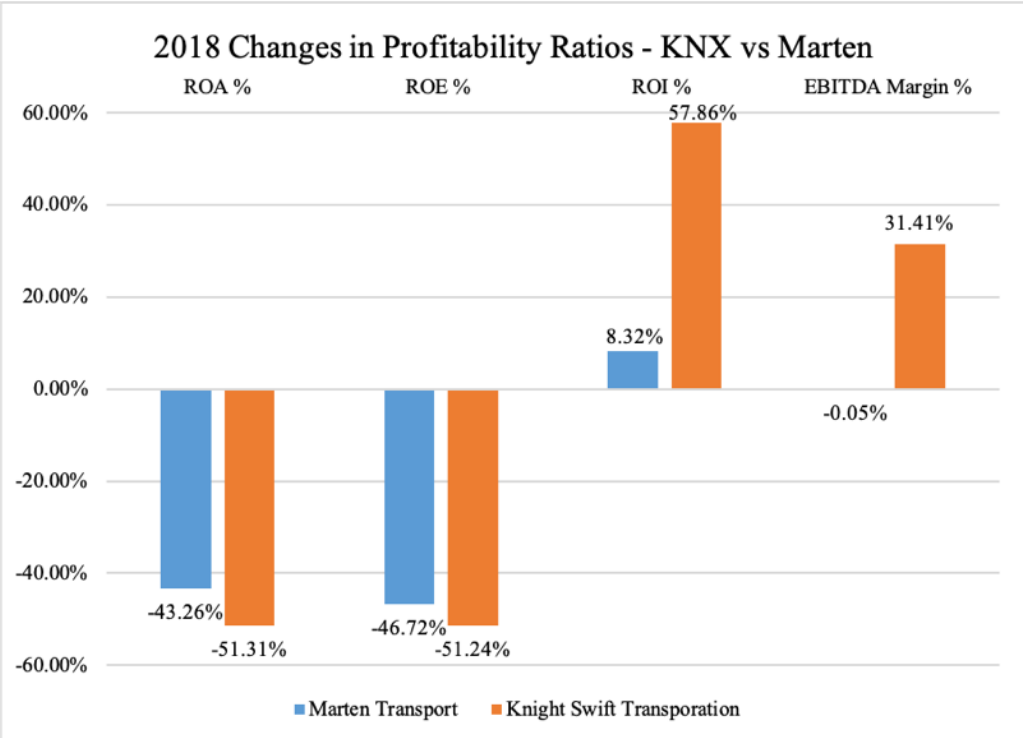


Figure 3-7: 2018 Changes in Profitability Ratios

Source: Annual 10-K Statements, 2018

Summary

Knight Transportation and Swift Transportation merged in an opportunity to create an unprecedented truckload giant. Under managerial control of Knight's old management team, the new company attempted to optimize operating performance to drive growth. Since the merger, profitability metrics have soared in comparison to Marten Transport, the top public competitor of Knight Swift Transportation in the refrigerated truckload subsector. One-year post-merger, gross profit and operating income have increased by 119 and 184 percent, respectively. The firm remains to be minimally leveraged, as liquidity and debt management have remained stable in

relation to pre-merger activity. Asset management post-merger shows areas of concern; however, one-year post-merger metrics show improved growth and are comparatively dominant to Marten's.

The trend of decreases in metrics in 2017, followed by extreme growth in 2018 continue when measuring the firm's overall financial strength through cash flow per share. Figure 3-8 demonstrates such trends as cash flow per share decreased -26.54 percent post-merger, yet, increased 72.91 percent in the following year.

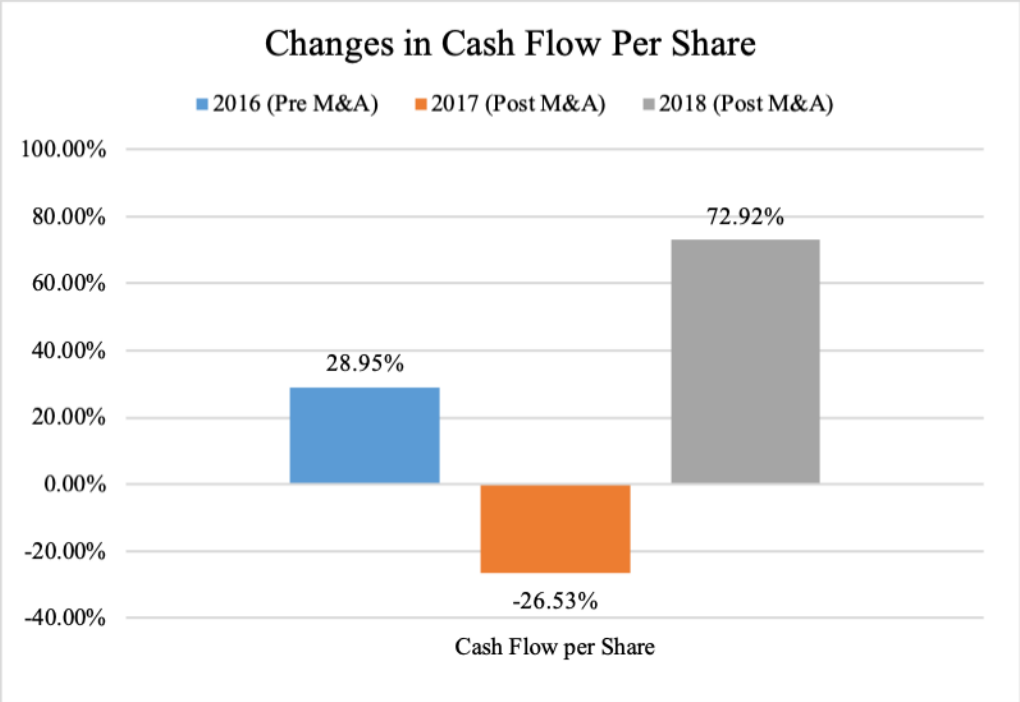


Figure 3-8: Changes in Cash Flow Per Share

Source: Annual 10-K Statements, 2016-2018

In order to quantify Knight Swift's dramatic increase in cash flow per share in 2018, a ratio comparison to its competitors was computed. Figure 3-9 delineates the juxtaposition of Marten Transport's financial strength versus Knight Swift Transportation's.

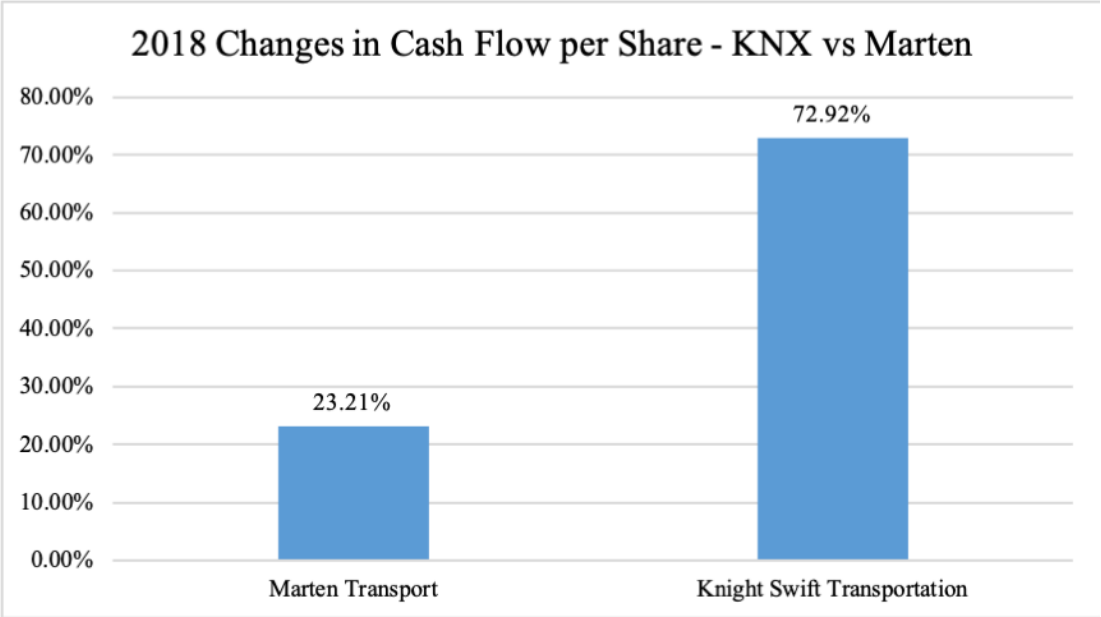


Figure 3-9: 2018 Changes in Cash Flow Per Share

Source: Annual 10-K Statements, 2018

Data concludes that the merger between Knight Transportation and Swift Transportation increased the financial strength of the merged company in relation to its competitors. While motivations for improved debt and liquidity management have proven trivial, Knight's managerial prowess seems paramount as profitability and asset management in relation to its competitors has seen impressive growth. Synergies allow the new merged company to see probable growth. However, financial stability is not the only determination of successful M&A activity. As Knight and Swift are both transportation companies, logistical integration is crucial for synergies and expansion to be recognized. Chapter 4 analyzes differentiation between both supply chain networks to determine any logistical rationale for the unprecedented merger between two truckload companies.

Chapter 4

Logistics Network Analysis

This chapter will delineate a step by step framework for analyzing logistical synergies realized in M&A activity between truckload companies of the trucking industry, summarizing motivations for the unprecedented merger between Knight Transportation and Swift Transportation. Figure 4-1 summarizes the six dimensions of the specified framework.

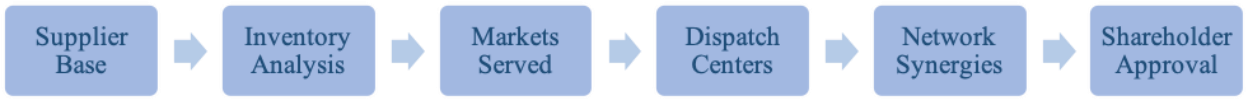


Figure 4-1: Logistical Analysis Framework

1. Supplier Base

When analyzing integration of supply chains between two transportation companies whose foundations rely upon efficient networks, it is imperative to begin at the root of internal affairs: the supplier base. The supplier base provides the physical materials ranging from truck parts to regulatory equipment that allows transportation companies to operate seamlessly. Service providers, including maintenance of fleets, tractors, and trailers are also included in the supplier base. The totality of the supplier base identifies all external resource providers that helps the company function efficiently.

In order to understand the supplier base of one company, it is imperative to perform a spend analysis. A spend analysis identifies the supplier(s) of all physical equipment used within

the trucking company from distribution center to end consumer destination. Such analysis also distinguishes how maintenance of such equipment is performed: internally or outsourced to an additional service supplier.

Once a spend analysis is performed and a supplier base is realized for one company, a separate analysis of the other participating company follows. Following the completion of such analyses, the supplier bases are compared, drawing similarities and differences between both companies. In order to realize logistical synergies, companies with varying supplier bases will need to consolidate vendors, ultimately achieving cost synergies through economies of scale for purchasing physical equipment. Both price and quality of equipment from suppliers must be considered when deciding upon specific vendors. When applying such principle to service suppliers (maintenance), it is important to do a cost analysis in the scenario of internal maintenance. Internal maintenance may seem like an efficient and achievable cost synergy; however, quality and quantity of maintenance may require external providers of manual services.

2. Inventory Analysis

Building upon the supplier base, an inventory analysis distinguishes quantity, type, and effectiveness of the equipment within the company. The number of equipment, specifically quantity of tractors and trailers in a company's fleet, is imperative for network efficiency. A dropped trailer, a trailer without a tractor to pull it, represents inefficiency within a network operation. Trailer to power ratio represents the number of trailers and intermodal containers to tractors there are in a company's fleet. Historically, the lower the trailer to power ratio the more efficient the transportation network. Table 4-1 delineates the fleet breakdown and trailer to power calculations for Knight Transportation and Swift Transportation pre-merger in 2016.

Pre-Merger Analysis (2016)	Number of Trailers	Number of Tractors	Trailer to Power
Knight Transportation	12,288	4,734	2.597
Swift Transportation	73,197	18,366	3.985

Table 4-1: Trailer to Power (Pre-Merger)

Source: Annual 10-K Statements, 2016

The results in the table above delineate greater network efficiency in Knight Transportation's supply chain in comparison to Swift's. However, it is important to note that trailer to power is not the only measure of network efficiency. Rather, trailer to power simply identifies a comparative metric for one aspect of efficiency within a distribution network.

Post-Merger Analysis	Number of Trailers	Number of Tractors	Trailer to Power
2017	84,701	23,069	3.644
2018	78,874	19,796	3.984

Table 4-2: Trailer to Power (Post-Merger)

Source: Annual 10-K Statements, 2016-2017

Figure 4-2 demonstrates fleet capacity and efficiency of Knight Swift Transportation post-merger. For comparative metrics pre- and post-merger, the average of the two companies' tractor to trailer ratio for 2016 is 3.291. Data shows that trailer to power increased post-merger in comparison to the averaged ratio of Knight and Swift Transportation in 2016. Rationale for such

an increase can be attributed to the fleet retirement process of Knight Swift Transportation. Depending on the age of Knight Swift's fleet, there may be no need to retire a large amount of tractor and trailers. Due to lack of visibility of inventory, if Knight Swift is continuing to buy class eight trailers without significant retirement of their old fleet, trailer ot power ratio can increase. Thus, improvement of efficiency in supply chain distribution is not a realized synergy in the Knight Swift Transportation merger.

Continuing the protocol of inventory analysis, a review of human capital follows physical capital quantity analysis. Within the transportation industry, the number of employees, specifically capable drivers, is imperative to network efficiency. Shortage of drivers can lead to extreme delays and inefficiencies within the supply chain. As fleet sizes can be altered through M&A activity, analysis and assignment of personnel is vital to fluidity within a network.

After inventory analysis of physical and human capital occurs, synergies can be recognized through reducing overcapacity and improving operating efficiency through economies of scale. Often, trailers are not at capacity resulting in inefficiency, identifying easy areas to reduce excess. Thus, integration of fleets and human capital allows for network synergies to be realized through M&A activity.

3. Markets Served

When determining possible synergies achieved during a M&A activity, it is crucial to look at the market positioning of both transportation companies. Geographically, merging with a company of different territories can promote geographical synergies, as products and services

can now be reached in a new market. Conversely, merging with a company of similar territories can promote cost synergies as reduction of distribution centers and terminal locations occur due to the similarity in transportation networks.

Juxtaposed, analysis of commodity market positioning allows synergies to be realized through economies of scale. For instance, a company with a strong refrigerated commodity presence can realize costs savings through its expansion of such specialization.

4. Dispatch Centers

Within the dispatch centers of a newly merged transportation company, controls must be implemented to insure quality control of client services. Specifically, carrier's logs and reporting must be standardized to insure fluidity and safety of transport along a network through implementation of existing or new software. Once standardized, synergies can be realized as excess costs and duplicate internal regulatory systems can be eliminated. Further, fulfillment controls and internal systems must follow a similar protocol. Creating standardization and fluidity across two distinguished networks takes significant resources; however, cost synergies through reduction of overcapacity, manual errors, and capital can be realized in the future once one set of regulating systems and processes are implemented.

5. Network Synergies

Network synergy refers to the extent of combining two companies' networks through node collapse, resulting in a streamlined structural position for the combined firm (Hernandez, 2018). The newly consolidated transportation company gains control of the existing ties of the

targeted company while maintaining the strengths from both fleets, creating a streamlined yet much broader network. For instance, an acquirer can expand its presence significantly by targeting a company that has significant presence in markets that the acquirer does not. The result of such M&A activity between two fleets that serve complimentary networks includes a massive outreach to consumer's end destinations that were once not achievable by the acquirer. This outreach results in synergies as the combination of fleet assets are more valuable than as separate entities (Hernandez, 2018).

As a bi-product of this massive outreach, excess capacity due to over lapping routes may occur. Combined companies can then optimize their route by eliminating overlapping terminal locations, realizing cost synergies. Additionally, with such an increased outreach, networks can be streamlined by combining overlapping routes, pinpointing ideal existing terminal locations and dispatch centers to remain. The newly tailored and streamlined routes decrease inefficiencies within the network and decreases overcapacity, allowing network synergies to be realized.

6. Shareholders' Approval

Financial growth is the most evident goal when embarking upon M&A activity; however, concrete materialization of such stability can be uncertain. Prior to completing a merger, it is crucial to monitor shareholders' support. Majority consensus is vital to complete the merger or acquisition process. Upon success of receiving such approval, it is vital to monitor the financial stability of the newly combined company into the future. Cost synergies can have uncertain timelines and realization of such financial success takes time. Sustainability of financial stability

is critical. Ultimately, shareholder support depends more upon financial stability in the long-term rather than achievable and transitory synergies in the short run.

Chapter 5

Conclusion

The wave of megadeals continues to dominate in the M&A landscape. Such a trend has advanced into the transportation industry. Chapter 2 explains such transitioning of M&A activity from small parcel and LTL companies, to the major players: truckload companies. The merger between Knight Transportation and Swift Transportation marks the first demonstration of M&A activity between two truckload companies in the transportation industry.

Typically, identifying targets for successful M&A activity is completed through financial analysis. Chapter 3 provides quantitative factors, determining financial motivations for the Knight Swift Transportation merger. Metric comparison to top industry competitors post-merger highlights financial effectiveness of such M&A activity. Financial analysis only demonstrates one facet of M&A analysis; Chapter 4 explores logistical attributes that are crucial to successful M&A activity. A step by step framework is provided to help identify realized logistical synergies. This framework is not only useful to summarize unprecedented motivations of truckload M&A, as seen through Knight Swift Transportation, but can also be used in future M&A activity between truckload companies of the trucking industry.

Analysis concludes that Knight Swift Transportation realized financial and logistical synergies through unprecedented M&A activity in the truckload subsector of transportation industry. Though data restrictions limit complete logistical analysis, the framework provided in Chapter 4 suggests overall success of the merger. However, success of this merger will be dependent on further cohesion of logistical amalgamation of the two companies.

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- Committing 35 hours per week to training, analyzing film, traveling and attending meets
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- Refined time management skills and adaptability to achieve personal and team goals

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KPMG — **New York, NY**
Financial Management Intern — *June 2019- August 2019*

- Created summary analyses of FTE metrics for Finance Directors' discussion
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Quadrant Private Wealth — **Bethlehem, PA**
Investment Analyst — *Summer 2018*

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CAI Learning Academy — **Allentown, PA**
Technology Intern & Instructor Aid — *Summer 2015 – 2017*

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Student-Athlete Advisory Board — **University Park, PA**
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