Mergers and Acquisitions in the USA Healthcare Industry: An Analysis

By

Sanya Jain

Dissertation submitted in partial fulfillment of the requirements of the degree

MBA Hospital and Health Management

Academic year, 2017-2019

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INSTITUTE OF HEALTH
MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

TO WHOMSOEVER MAY CONCERN

This is to certify that Dr. Sanya Jain student of MBA Health and Hospital Management from The IIHMR University, Jaipur has undergone internship training at ZS Associates from 04/02/19 to 31/04/19

The Candidate has successfully carried out the study assigned to him during internship training and his approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish her all success in all his future endeavors.

Dean, Academics and Student Affairs

The IIHMR University, Jaipur

16 May 2019.

16-5-19

Asst Professor

The IIHMR University, Jaipur

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SALES+MARKETING

May 15, 2019

To Whomsoever IT May Concern

This is to certify that Sanya Jain (Emp ID: 20400) was a bonafide employee of ZS Associates India Private Limited from Feb 4, 2019 to April 30, 2019. She comes across as a committed, sincere & diligent person who has a strong drive and zeal for learning. She was working as a Knowledge Management Associate- Intern at the following office address :

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This certificate is issued on specific request from employee for recognition of having successfully completed her Internship in the department of Knowledge Management and has successfully completed her Project on Mergers and Acquisitions in the USA Healthcare Industry: An Analysis without any risk and liability on the company and the undersigned.

We wish him/her all the best for future endeavors

For ZS Associates India Private Limited

Akanksha Jaiswal
Human Resources

ZS Associates India Private Limited
GURGAON
HR

THE IIHMR UNIVERSITY, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled Mergers and Acquisition in the USA Healthcare Industry: An Analysis submitted by Dr. Sanya Jain, Enrollment No. IIHMR-U/01/2017-19/0659 under the supervision of Dr. Mohan Bairwa for award of MBA in Hospital and Health Management in Health and Hospitals of the University carried out during the period from 4th February 2019 to 1st May 2019 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other institute or other similar institution of higher learning.

Sanya Jain

Signature

ABSTRACT

Dr. Sanya Jain
ZS Associates, Gurgaon
Guided by: Dr. Mohan Bairwa

Keywords: M&A, Mergers, Acquisitions, USA, Healthcare Industry, Pharma, Mega-Mergers, Trends

Background

To strengthen financial and market position, Mergers and Acquisitions have become popular strategies since time immemorial. Healthcare industry in the USA is in a turmoil due to pricing pressure and policy changes from the government. It is now focusing more on a patient centric approach. Keeping up with the Merger and Acquisition activity has become the need of the hour.

Objectives

In this study we ask paramount questions such as what type of M&A are happening more in the USA healthcare industry- Horizontal or Vertical, what are the trends of M&A activity in the USA healthcare industry in the recent years and What are the reasons for increase or decrease in the M&A activity in the USA healthcare industry?

Such a study is important to understand the ongoing trend of the healthcare industry and help major stakeholders of the industry to make better decisions.

Methodology

Literature based Descriptive study was undertaken with data from all these sources on M&A activity over the years for defined domains across USA healthcare industry, type of integrations- horizontal or vertical, information about reasons for M&A, various analyst reports, predictions for 2019 for M&A activity was studied in the timeframe from February 2019 to March 2019.

Results

The study findings confirm that M&A activity is increasing over time and major healthcare companies see M&A as an effective strategy to boost profitability, secure market position, combat pressure from new entrants and to expand business to new geographies.

Major trends that came out during the study were that over the years trend is shifting from Horizontal mergers to Vertical mergers, companies are reinvesting into their core therapy

area rather than exploring new markets, big pharma companies are divesting from their supplementary business to focus on core therapy areas, growth of investments in Oncology portfolio, divergence into other geographical areas like China, Canada and Europe and growth of mega mergers.

Conclusion

The study points out the importance of M&A in the USA healthcare industry, it also gives out the reasons why M&A in the USA healthcare sector is increasing. The study has thrown light on the upcoming trends in the industry such as-

- Over the years trend is shifting from Horizontal mergers to Vertical mergers
- Companies are reinvesting into their core therapy area rather than exploring new markets
- Big pharma companies are divesting from their supplementary business to focus on core therapy areas
- Growth of investments in Oncology portfolio
- Divergence into other geographical areas like China, Canada and Europe
- Growth of mega mergers

ACKNOWLEDGMENT

At the very beginning of this report, I would like to extend a thank you note to everyone who has helped me complete this report. Internship opportunity at ZS has been enriching in so many ways. It has helped me develop both professionally and personally.

I would like to express my gratitude to Mr Nitin Aggarwal, Principal KM, ZS Associates for providing me with this opportunity.

I would sincerely like to extend my gratefulness to **Mrs. Karishma Trikha** (Manager) and **Mrs. Nikita Seth**(Consultant) who despite their work commitments took time out to help me successfully complete my project.

I express my gratitude to IIHMR University for always guiding their students.

Also, I am indebted to Dr. Mohan Bairwa, Assistant Professor, IIHMR for his corporation, guidance and encouragement.

Sincerely

Dr. Sanya Jain

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List of Abbreviations

B- Billion

Biotech- Biotechnology Company

BMS- Bristol- Myers Squibb

CAGR- Compound Annual Growth Rate

Corp- Corporation

GSK- GalaxoSmith Klein

J&J- Johnsons and Johnsons

M&A- Mergers and Acquisitions

NASH- Nonalcoholic Steatohepatitis

Pharma- Pharmaceutical company

R&D- Research and Development

TPA- Third Party Administrators

OTC- Over the Counter

ZS- Zoltner&Sinha

Section 1- Internship Report

1.1 INTRODUCTION

ZS Associates, Inc. offers administration counseling administrations. It gives client understanding, advertise division, evaluating, advancement, deals arranging, information administration, and execution examination counseling administrations. The organization likewise gives item gauging, focusing on, and account arranging administrations. It serves customer items, money related administrations, mechanical items, human services, pharmaceuticals, biotechnology, media communications, transportation, medicinal items, and coordination businesses. ZS Associates, Inc. has a vital organization with Veeva Systems. The organization was established in 1983 and is headquartered in Evanston, Illinois with extra workplaces in Brazil, Sao Paulo, Singapore, Japan, Spain, India, Germany, France, Italy, United Kingdom, Canada, Pennsylvania, New York, California, Massachusetts, Toronto, Zurich, Shanghai etc.

ZS Associates was established in 1983 by Prabha Kant Sinha and AndrisZoltner, who cooperated as educators of advertising at Kelloggschool of Management at Northwestern University, Evanston, USA

The company utilizes in excess of 6,500 workers in 23 workplaces across the globe. ZS's Capability and Expertise Center is situated in vast center points in Pune, New Delhi and Bangalore, India. In 2014, the firm provided business for 49 out of 50 biggest medication creators and 17 out of the 20 biggest medicinal gadget producers and furthermore serves purchaser items, monetary administrations, mechanical items, broadcast communications, and transportation and coordination ventures.

Fig. 1.1- ZS Associates Gurugram Office

The Consultants use the company's profound information of the scope of offers and showcasing exercises and how they collaborate with a specific end goal to foresee the positive and negative impacts of essentially any choice. Subsequently, the firm offers its customers one of a kind favorable position of what will work the best for them and their organization.

Thirty years back, ZS helped pioneer the move in business system from being resolved to a great extent by instinct to being driven by information. The crucial approach is same even today: revealing reality through quantifiable actualities of what works, educated by unrivaled experience and steady advancement. Accordingly, ZS have profound skill in what makes effective deals and advertising and has manufactured a worldwide group of in excess of 2,000 exceedingly prepared experts who are focused on this interest.

Since 1983, ZS has been working shoulder to bear with pioneers at several the worlds' best activity. ZS customers normally are expansive or average sized organizations whose achievement relies upon the adequacy of their deals and advertising. ZS causes them to accumulate and examine information to make the best procedures; organize deals and promoting exercises increment request productively; and change rapidly to wind up more focused.

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Fig.1.2 - Logo of ZS Associates

1.2 ORGANIZATION PROFILE

ZS Associates is established in a scholarly organization that started in the early1970s. In 1973, Andy Zoltners finished a PhD in whole number programming calculations at Carnegie Mellon University, dedicating a part in his thesis to deals an area arrangement issues. Andy in this manner acknowledged a showing position at the University of Massachusetts (UMass).

The next year, Zoltner encountered PhD understudy Prabha Sinha, who was investigating the utilization of higher math in dinner making arrangements for the military. The two worked together on the Multiple-Choice Knapsack issue and co-composed a paper on the point. In the long run they understood that this line of reasoning was very relevant to the issues of offers constrain measuring and asset distribution.

Throughout the following quite a while, the match worked with various organizations, increasing down to earth encounter applying displaying methods to deals constrain issues.

In 1982, Andy exhibited his and Prabha's scientific models for deals compel measuring and domain arrangement to the Pharmaceutical Management Science Association (PMSA), utilizing an early Apple PC to show deals regions on location. Administrators from a large number of the going to organizations were shocked by the model's capacity to rapidly explain deals compel estimating, deals asset distribution, and domain arrangement issues and see arrangements outwardly continuously, with one shouting, "I've been sitting tight as long as I can remember for this!"

By 1983, both Andy and Prabha were instructing at Northwestern's Kellogg School of Management. They addressed by day, and by night they chipped away at the numerous customer extends that came their direction. As of now having counseled to eight organizations, the two teachers inferred that there was a chance to enable numerous customers to address basic deals compel adequacy issues, thus they joined ZS Group, Inc., on September 21, soon renamed ZS Associates, Inc.

1985 saw ZS twofold in staff, from 12 to in excess of two dozen, and the thriving counseling firm soon exceeded the standard midnight PC hurries to Northwestern's PC focus. Andy and Prabha, understanding the need and chance to extend, collateralized an IBM 3481 centralized computer PC buy with their homes. That same year, the firm discharged the primary adaptation of its mechanized region plan programming.

By 1986, ZS had helped eight of the world's 10 biggest pharmaceutical organizations measure their business powers and adjust regions in the United States, Canada, or Europe. The two-year-old, 25-man firm had just chipped away at about 100 tasks in twelve nations.

In 1987, ZS was chosen by a worldwide enterprise to help rearrange, cut back, realign, and redeploy its USA deals powers. It was one of ZS's biggest tasks to date. In any case, giving awesome examination were just insufficient for this task – the general population arranged parts of encouraging situation choices ended up being basic also. Giving change administration procedures and supporting instruments for the HR side of offers and promoting turned into a key component of the company's situation work.

Moreover, ZS started taking a shot at motivator remuneration outline and organization, helping customers decide ideal impetus gets ready for their business groups and in addition distributing execution reports and ascertaining achievement on an outsourced premise.

In 1990, another universal organization picked ZS to help create deals drive procedures and arrangements for its as of late consolidated deals powers in twelve key nations. This was the first of numerous such close concurrent, multi-nation ventures for the firm. The same effective model was rehashed through the 1990's with various customers.

In 1993, ZS presented another business constrain viability and profitability structure. This system – and future adaptations – has since been utilized broadly by the firm to enable customers to decide their key issues and enhance their business execution. The organization likewise started to create information distribution centers for customers, and additionally a scope of logical administrations. These undertakings were the beginning for ZS's administrations in customer capacity constructing and outsourcing.

In 1997, ZS started to apply its information dealing with capacities and thorough examination to the showcasing research work. In ensuing years, this new advertising research region became together with ZS's as of now settled gauging practice and extending skill in more extensive promoting issues, to come to fruition as ZS's flow showcasing administrations hone territory.

In 1998, ZS presented specific programming, forms, and committed groups to center around the developing open door in directing deals compel motivating force remuneration programs, a zone the firm had been tending to for quite a while. Notwithstanding giving outsourced administrations, our work around their empowered customers to effectively direct their motivating force pay programs in-house.

In 2002, ZS propelled the Marketing Research rehearse, which inevitably advanced to a significantly more extensive Marketing arrangements territory.

In 2004, the Institute for Operations Research and the Management Sciences (INFORMS) granted Andy and Prabha the Marketing Science Practice Prize for exceptional usage of advertising science ideas and strategies, perceiving the business region arrangement framework they had created and actualized through crafted by ZS Associates. Their triumphant paper, Sales Territory Design: 30 Years of Modeling and Implementation, was in this way distributed in the INFORMS diary, Marketing Science.

By 2007, ZS's headcount had topped 1000 representatives. Likewise, in 2007, the firm finished in excess of 2000 ventures – a first for a solitary year – for very nearly 300 customers in 28 businesses in 38 nations. The tasks were in 30 unique classes/issues: more different than any time in recent memory.

ZS's Silver commemoration in 2008 stamped 25 years of unprecedented development:

• From one little office in a school town, the firm developed to 17 workplaces around the globe – nine in North America, five in Europe and three in the Asia/Pacific locale

• Building on ZS's unique MAPS® region arrangement programming, the present Javelin™ Software Suite bolsters a horde of offers and advertising needs

• An early spotlight on the pharmaceutical business has extended to B2B associations in about 30 ventures

• The customer issues ZS addresses have advanced from deals drive size, structure and arrangement to incorporate a full range of offers and promoting issues, giving counseling aptitude, customer capacity constructing and outsourcing administrations

ZS's Accolades-

- Recognized as a Best Place to Work for LGBTQ Equality in 2019 by the Human Rights Campaign Foundation
- Named as Consulting Magazines' "Best Firms to Work For" in the years 2017 and 2018
- Ranked by Vault on several 2019 best-of lists, including "Consulting 50," Most Prestigious Consulting Firms" and "Best Consulting Firm" in the following practice areas: healthcare, retail, human resources and pricing, sales and marketing
- Recognized as one of the 2018 100 Best Companies for Women in India by the Working Mother and AVTAR Best Companies for Women in India study
- One of Pharma Tech Outlook's top 10 analytics solution providers in 2016
- Named an Aflac 2016 Partner of the Year in the service category for its long-standing support of the Fortune 500 insurer's sales and marketing operations
- Ranked second on the Fairygodboss "Best Company for Women" list and sixth on its "Best CEO for Gender Diversity" list for 2018
- PEX Network 2017 honorary mention for "Best Business Process Excellence Program Under Two Years"
- ZS's Capability and Expertise Center in India received the prestigious "Great Place to Work" certification for 2017-2018 and 2018-2019

- Principal Shankar Viswanathan named one of Analytics India Magazine’s2017 “Top 10 Data Scientists in India”
- One of Analytics India Magazine’s 2016 top 10 analytics firms to work for in India
- Ranked No. 13 on the Times Ascent and WHRD Congress “Dream Companies to Work For” list for 2016
- One of JOMBAY’s #CultureCanvas top 10 companies in India for 2016 that best reflect their culture in the workplace
- Named to LinkedIn’s 2016 “Top Attractor Where India Wants to Work Now” list due to the firm’s success attracting and retaining top talent
- Recognized for “Excellence in Talent Acquisition” at the 2017 Society for Human Resource Management India Awards
- Runner-up for “Excellence in Social Media People Practices” and “Employer with Best Employee Health & Wellness Initiatives” at the 2016 Society for Human Resource Management India Annual Conference and Exposition

1.2.1 OFFICES AROUND THE GLOBE

ZS is one firm with various workplaces situated to give the most elevated quality and most mindful support of our customers. Every office can adequately serve nearby or local customers while likewise adding to extend groups working the world over, gathering the ideal blend of capacities, encounter, topography, dialect and culture.

Americas	**Europe**	**Asia**
Boston	Barcelona	New Delhi
Chicago	Frankfurt	Pune
Evanston	London	Shanghai
Los Angeles	Milan	Singapore
New York	Paris	Tokyo
Philadelphia	Zurich	Bangalore
Princeton		
San Diego		
San Francisco		

São Paulo

Toronto

1.2.2 ORGANIZATIONAL STRUCTURE AT ZS ASSOCIATES

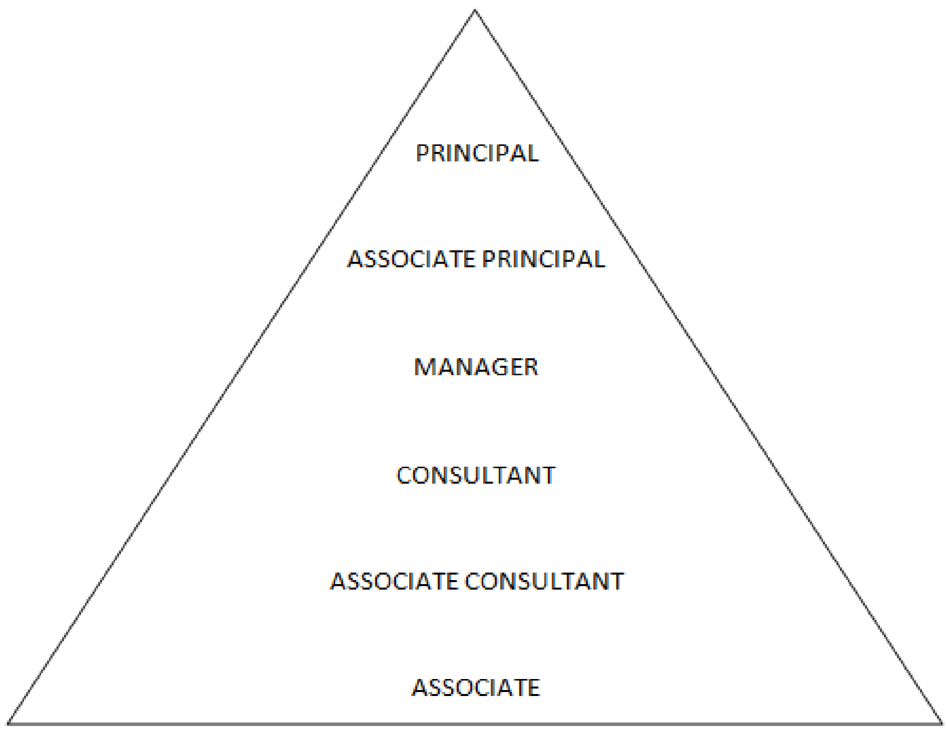

Fig.1.3- Organizational Structure at ZS Associates

1.3 SERVICES PROVIDED

1.3.1 HEALTHCARE SPECIFIC

1.3.1.1 BUSINESS DEVELOPMENT AND LICENSING

Authorizing is basic to keeping up a strong pipeline. Be that as it may, rivalry for right on time and late-organize mixes and restorative items is enormous. ZS quickens the making of business improvement methodologies and guarantees that potential open doors are very much assessed and lined up with portfolio and key needs.

1.3.1.2 CONTRACT OPERATIONS

Life sciences organizations burn through billions every year to pay refunds – $40 billion by the U.S. pharmaceutical industry alone. In any case, numerous organizations overpay as a result of wrong payer information and resistance. ZS can enable you to avoid excessive charges, help consistence and decrease operational expenses.

1.3.1.3 CUSTOMER DECISION JOURNEY

An adroit and significant Customer Decision Journey can give a key preferred standpoint over customer's opposition.

1.3.1.4 CUSTOMER-CENTRIC MARKETING

The principles of commitment with social insurance suppliers are evolving. HCPs are more carefully associated than any other time in recent memory, which makes much more open doors forever sciences deals reps to interface with their clients. Yet, that computerized availability additionally is changing how HCPs need to speak with life sciences associations. ZS empowers associations to coordinate limited time endeavors and better oversee correspondences, utilizing rich experiences to streamline the client travel.

1.3.1.5 MANAGED CARE

The most recent patterns show that the power used by payers will just keep on increasing: payers are taking greater refunds and utilizing usage administration procedures all the moreoften with the two doctors and patients. ZS help life sciences organizations considerably increment the income, piece of the pie and gainfulness of working with oversaw mind.

1.3.1.6 MARKET ACCESS AND PRICING

Medicinal services moderateness and the estimation of pharmaceutical items have been hot-catch issues for a considerable length of time, and mounting monetary weights and biotechnology propels have made them the focal point of a sociopolitical discuss. ZS's esteem and access group brings a one of a kind mix of thought initiative, multidisciplinary ways to deal with esteem, organized systems and customer organization to help make business progress in a quickly evolving condition.

1.3.1.7 PRODUCT LAUNCH

Each item dispatch requires cautious arranging and exact execution to expand its odds of progress at dispatch and all through the item life cycle. ZS underpins three key phases of dispatch arrangement and execution—conveying a precise way to deal with item dispatches that enhances consistency and spotlights on what makes a difference most.

1.3.2 SALES

For almost 30 years, ZS's deals counseling administrations have helped organizations around the globe exceed expectations at basic deals exercises, for example, outlining deals channels that use both immediate and backhanded ways to showcase; making the best deals constrain structure, an area design, size, assignment and impetus approach; and incorporating deals and advertising programs with remarkable outcomes and levels of proficiency. Discover how ZS has helped several organizations pick up piece of the overall industry by extraordinarily enhancing the execution of their business associations.

1.3.2.1 BUSINESS INTELLIGENCE

Compelling client division gets from an unmistakable comprehension of client needs, purchasing procedures and inclinations, esteem recognitions, and potential. ZS joins advertising science ability with many years of experience to enable organizations around the globe to grow profoundly noteworthy division systems that drive mark procedure through to strategic execution.

1.3.2.2 BUSINESS PROCESS IMPROVEMENT

When attempting to reveal operational barricades and wasteful aspects in your deals and advertising divisions, ZS can help to reengineer deals and showcasing forms and encourage effective change administration inside your association.

1.3.2.3 CUSTOMER TARGETING AND ACTIVITY PLANNING

The business field constrain stays a standout amongst the best channels to connect with the client. Be that as it may, it is likewise a standout amongst the most costly. What's more, in a market in which you need to accomplish more with less, organizations must augment the arrival on their business compel? ZS enables your business association to recognize the best openings and field constrain strategies.

1.3.2.4 GO-TO-MARKET STRATEGY AND TRANSFORMATION

ZS enables deals and advertising officials to recognize basic development openings, decide deals and promoting methodology, and execute the essential changes – changes that frequently help our customers' income 2-10% or more

1.3.2.5 SALES CHANNEL STRATEGY AND MANAGEMENT

ZS makes winning channel techniques. We adjust go-to-showcase technique with general business procedure by helping customers create and deal with a channel program with the correct blend of immediate and circuitous (accomplice) channels to meet business objectives and client commitment necessities.

1.3.2.6 SALES COMPENSATION

A powerful deal pay design holds your best business people, increment piece of the pie, make offering costs unsurprising and lessen the cost of plan organization. A substandard arrangement does the inverse. ZS makes designs and amounts that help your procedure and streamline organization.

1.3.2.7 SALES FORCE DESIGN

The business constrain is one of an association's most important and costly showcasing assets. Dissimilar to other showcasing strategies, constructing or reshaping a business power can take significant time, cash, and consideration. ZS has planned deals powers for associations crosswise over in excess of 25 enterprises and in more than 70 nations.

1.3.2.8 SALES FORCE EFFECTIVENESS

In the course of recent years, ZS has led a large number of offers drive viability commitment with more than 700 organizations in excess of 70 nations and 25 ventures. We have helped our customers' sales representatives accomplish: longer publicity with their clients, more themes talked about amid client visits, fundamentally enhanced consumer loyalty evaluations—and most critical, up to 30% higher deals execution.

1.3.2.9 TERRITORY MANAGEMENT

Every single key process—from deals drive arranging and organization to motivate pay and budgetary revealing—rely upon productive, improved domain administration arrangements. Having spearheaded the idea almost 30 years back, ZS offers unparalleled experience and information in domain administration and its ideal part in your general deals tasks.

1.3.3 MARKETING

1.3.3.1 BUSINESS PROCESS IMPROVEMENT

When attempting to reveal operational detours and wasteful aspects in deals and promoting offices, ZS can help to reengineer deals and advertising forms and encourage fruitful change administration inside customer's association.

1.3.3.2 BUSINESS INTELLIGENCE AND TECHNOLOGY

ZS business knowledge arrangements enable customers to settle on better business choices and spotlight on exercises that have the best effect on deals and benefit. ZS business knowledge arrangements have helped Fortune 100 customers enhance deals and advertising tasks and spare as much as 25% on operational expenses.

1.3.3.3 CUSTOMER EXPERIENCE

Coordinating the correct experience is an impressive test, particularly as offering and limited time channels multiply. ZS exploits chances to change over consumer loyalty into client dedication, support—and at last, long haul natural development for your business.

1.3.3.4 CORPORATE SUPPORT

ZS's Corporate Support groups work the company's center inner undertaking capacities. ZS's worldwide groups involve group situated, even minded and results-driven individuals who flourish in a testing workplace. ZS's kin originated from various foundations, however share an enthusiasm for quality client administration and commitment—regardless of whether our client is a customer or another ZSer.

1.3.3.5 CUSTOMER SEGMENTATION

Successful client division gets from a reasonable comprehension of client needs, purchasing procedures and inclinations, esteem recognitions and potential. It additionally requires recognizable proof and comprehension of the basic certainties that will drive viable brand technique, incentive and deals constrain plan choices. ZS consolidates promoting science aptitude with many years of experience to enable organizations around the globe to grow very noteworthy division techniques that drive mark methodology through to strategic execution.

1.3.3.6 FORECASTING

Understanding principal showcase drivers and their impact in forming item request is necessary to great business arranging and full usage of organization assets. ZS has created modified anticipating procedures to serve our customers. We blend our anticipating learning and involvement with the business aptitude of our customers to create cooperative outcomes.

1.3.3.7 MARKETING EXECUTION

With expanding access to new types of information and enhancements in innovation, the way associations market to their clients is improving –. Clients expect that when they are locked in, it's with significant, opportune messages offering answers for a prompt torment point or business challenge.

ZS's Marketing Execution arrangements enable associations to utilize examination to settle on real-time choices to convey the perfect client encounter—all while augmenting benefits.

1.3.3.8 MARKETING MIX

Deals and showcasing associations confront tenacious cost weights. ZS helps deals, showcasing and mark officials generously increment the arrival on their ventures and gives them certainty that they are settling on the ideal special spending choices.

1.3.3.9 MARKETING PERFORMANCE MEASUREMENT AND OPTIMIZATION

Exact and convenient input on showcasing program execution is basic to the continuous calibrating and course remedies important to amplify promoting results and degree of profitability. ZS has broad experience helping customers amplify the esteem acknowledged from their interests in promoting programs.

1.3.3.10 PIPELINE STRATEGY

Numerous life science organizations of all sizes battle to construct strong item portfolios – a stable of medications in different phases of improvement that later end up real business triumphs. ZS has an extensive arrangement of pipeline methodology counseling administrations – skill that will enable you to devise procedures for illness zones to focus on, the best business advancement and authorizing arrangements to make, item portfolio choices, improvement designs, and dispatch exercises that create request.

1.3.3.11 R&D EXCELLENCE

Effective life sciences R&D associations make more than logical development, yet in addition convey generous incentive to their clients, workers, and investors. ZS enables R&D customers to expand their incentive through more focused on advancement, diminished improvement costs and timetables, more important items, and expanded logical commitment.

1.3.3.12 VALUE PROPOSITION

A convincing incentive lies at the core of offers and promoting viability. Fitting business sector contributions to the particular needs and purchasing inclinations of clients, and successfully conveying and demonstrating the related advantages and worth, have turned into a focused basic in many markets. ZS enables customers to accomplish winning offers.[4]

1.4 DEPARTMENTS WORKED

At ZS, I worked with Emerging Trends team within Knowledge Management Team.

1.5 LEARNINGS FROM THE KNOWLEDGE MANAGEMENT TEAM

I got to learn following things at ZS:

- Role of Knowledge Management Associate
- Culture of the organization
- Making deck for clients
- ZS way of power point presentation
- Professional way of writing an email
- Exploring databases and doing secondary research
- Emerging trends of the pharmaceutical industry
- Mergers and acquisitions in the pharmaceutical industry
- Reimbursement Landscape of Healthcare in USA

Section 2 - Dissertation Report

Mergers and acquisition across Healthcare Industry in the USA- An Analysis

2.1 Introduction

Mergers and acquisitions, or M&A for short, involves the process of combining two companies into one. The goal of combining two or more businesses is to try and achieve synergy – where the whole (new company) is greater than the sum of its parts (the former two separate entities).

Mergers occur when two companies join forces. Such transactions typically happen between two businesses that are about the same size and which recognize advantages the other offers in terms of increasing sales, efficiencies, and capabilities. The terms of the merger are often friendly and mutually agreed to and the two companies become equal partners in the new venture.

Acquisitions occur when one company buys another company and folds it into its operations. Sometimes the purchase is friendly and sometimes it is hostile, depending on whether the company being acquired believes it is better off as an operating unit of a larger venture.

The result of both processes is the same, but the relationship between the two companies differs based on whether a merger or acquisition occurred.

2.2 Rationale

The current study was undertaken as a part of the market analysis for ZS Associates, keen on exploring how they can make use of M&A trend to help their clients stay ahead of the market. A secondary research on how M&A trends in the USA healthcare industry are changing over time was proposed.

2.3 Research Questions

The following research questions were asked to conduct the research.

1. What type of M&A are happening more in the USA healthcare industry- Horizontal or Vertical?
2. What are the reasons for increase or decrease in the M&A activity in the USA healthcare industry?
3. What are the trends of M&A activity in the USA healthcare industry in the recent years?

2.4 Objectives

General Objective

To map the current scenario of mergers and acquisitions in the healthcare industry in the USA through a scoping analysis

Specific Objectives

1. To identify the type of M&A that are happening more in the USA healthcare industry- Horizontal or Vertical
2. To predict the trends of M&A activity in the USA healthcare industry
3. To determine the reasons for increase or decrease in the M&A activity in the USA healthcare industry

2.5 Methodology

Study design: Literature based Descriptive study

Data: Secondary databases such as Bloomberg, Evaluate Pharma, Citeline, TrialTrove, DataMonitor, Google

Method: Data from all these sources on M&A activity over the years for defined domains across USA healthcare was obtained for the following information-

- M&A activity over the years for defined domains across USA healthcare industry

- Type of integrations- horizontal or vertical
- Information about reasons for M&A
- Various analyst reports, predictions for 2019 for M&A activity etc

Period: February 2019- April 2019

Inclusion Criteria

- Deal value of $50 Million or more
- Mergers and acquisitions amongst- pharmaceuticals, payers, providers, retails
- Deals that have been announced after 1st October 2018
- Deals that have been closed after 1st October 2018
- Either of the two companies are USA based

Exclusion criteria

- Deal value below $50 million
- Deals that have been announced after 31stMarch 2019
- Deals that have been closed before 1st October 2018
- Deals that have been speculated but not confirmed by both the companies
- Proposal made but not accepted by the other company or government
- Deal value has not been disclosed
- Deals that have been terminated

2.6Overview of Healthcare industry in the USA

Healthcare industry in the USA has been classified into:

1. Pharmaceutical companies
2. Payers
3. Providers
4. Retails
5. Digital

6. Biotech
7. Medical Devices

Defining the terms-

Pharmaceutical companies-The companies that research, develop and market drugs used for medicinal purposes. Companies may deal in branded medicines or generic medicines.

Payers- Companies that deals in finances or reimbursements of the cost of healthcare services for patients under a legal contract e.g.- Insurance companies, TPAs

Providers-an individual or institution that provides health care services e.g.- Hospitals, clinics

Retail- companies that sell healthcare related products e.g. pharmacies, online stores

Digital- companies that develop software for the healthcare industry.

Biotech-companies that research and manufacture drugs that are derived from living organisms.

Medical Device- companies that manufacture devices used by patients or healthcare providers.

Horizontal Integration-a business consolidation or merger between two companies that are operating in the same domain e.g.- M&A amongst pharma companies

Vertical Integration- a business consolidation or a merger between two companies that are operating in different domains e.g.- a pharma company acquiring a digital company

2.7Mergers and Acquisitions

Table 2.1: M&A deals

Acquirer Name	Target Name	Deal value (in Billion $)	Announcement Date	Type of M&A	Type of Integration	Reason
CVS Health Corp	Aetna Inc	$69B	12/3/2017	Retail-Payer	Vertical	merger would be developing new ways to engage consumers in their total health and wellness through deeper collaboration with their physicians
Takeda	Shire	$62B	05/08/2018	Pharma-pharma	Horizontal	Takeda will become the 1st Japanese company to reach the top 10 drug makers by revenue
J&J	Arrowhead	$3.7B	10/04/2018	Pharma-pharma	Horizontal	to develop and market gene-silencing Hepatitis B treatment
Novartis	Endocyte	$2.1B	10/18/2018	Pharma-Pharma	Horizontal	radioligand technology for treating cancer

Table 2.1 continued

Illumina Inc	Pacific Biosciences	$1.2B	11/1/18	Biotech-Biotech	Horizontal	To retain its dominant position in the DNA sequencing space
ResMed Inc	MatrixCare Holdings Inc	$0.7B	11/5/2018	Medical Device-Digital	Vertical	to help ResMed expand its software-as-a-service offerings
Abbvie	Mission Therapeutics	$3.2B	11/15/2018	Pharma-Biotech	Vertical	will together focus to find treatment for unmet neurodegenerative diseases such as Alzheimer and Parkinson
Boston Scientific Corp	BTG PLC	$4.2B	11/20/2018	Medical Device-Pharma	Vertical	will augment Boston Scientific's capabilities in important areas of unmet need such as cancer and pulmonary embolism
Doctors Co/The	Fojp Service Corp,Hospitals Insurance Co Inc	$0.6B	11/27/2018	Provider-Payer	Vertical	coverage for physicians from all specialties
GSK	Tesaro	$5.1B	12/03/2018	Pharma-Pharma	Horizontal	will build GSK's capability in oncology

Table 2.1 continued

GSK	Pfizer	$12.7B	12/19/2018	Pharma-Pharma	Horizontal	will help them together become global leaders in OTC products
BMS	Celgene	$74B	01/03/2019	Pharma-Pharma	Horizontal	to address patients' cancer, inflammatory, immunologic and CVD needs
Eli Lilly	Loxo Oncology	$6.9B	01/07/2019	Pharma-Pharma	Horizontal	Lilly will boost its oncology portfolio into precision medicines
PHC Holdings Corp	Anatomical pathology unit/Thermo Fisher Scientific	$1.1B	01/28/2019	Medical device-Biotech	Vertical	PHC will expand its business portfolio in diagnostics and healthcare portfolio through the acquisition
GSK	Merck	$4.2B	02/06/2019	Pharma-Pharma	Horizontal	to acquire leadership position in new class of immunotherapies
J&J	Auris Health	$3.4B	02/13/2019	Pharma-Digital	Vertical	to help push the boundaries of robotics in medical field and help patients

Table 2.1
continued

Abbott	Novo Nordisk	$7.2B	02/20/2019	Pharma-Pharma	Horizontal	to help health care professionals & people with diabetes make more informed treatment decisions
Janssen	Morphic Therapeutics	$0.7B	02/21/2019	Pharma-Biotech	Vertical	to develop new generation of oral integrin medicines
Danaher Corp	BioPharma Business/GE	$21B	02/25/2019	Digital-Pharma	Vertical	will expand presence in the biopharma industry
Roche	Spark Therapeutics	$4.3B	02/25/2019	Pharma-Pharma	Horizontal	to expand its presence treating hemophilia
Centene	Wellcare Health	$15B	03/27/2019	Payer-Payer	Horizontal	Centene will become the fourth largest insurer in the country
AstraZeneca	Daiichi Sankyo	$6.9B	03/29/2019	Pharma-Pharma	Horizontal	To work on an experimental treatment for breast cancer

2.8 Inference

Healthcare Industry's M&A remains strong with little change in momentum despite years of continuous consolidations. Driven by value-based care and emerging at a greater scale and geographic coverage, M&A action indicates few indications of a changing trajectory.

M&A activity largely remains unaffected by ever changing government turmoil. Despite uncertainty around government's earlier plans for the industry, M&A continues in full force.

Type of M&A- Horizontal or Vertical?

Horizontal Integration-a business consolidation or merger between two companies that are operating in the same domain e.g.- M&A amongst pharma companies

Vertical Integration- a business consolidation or a merger between two companies that are operating in different domains e.g.- a pharma company acquiring a digital company

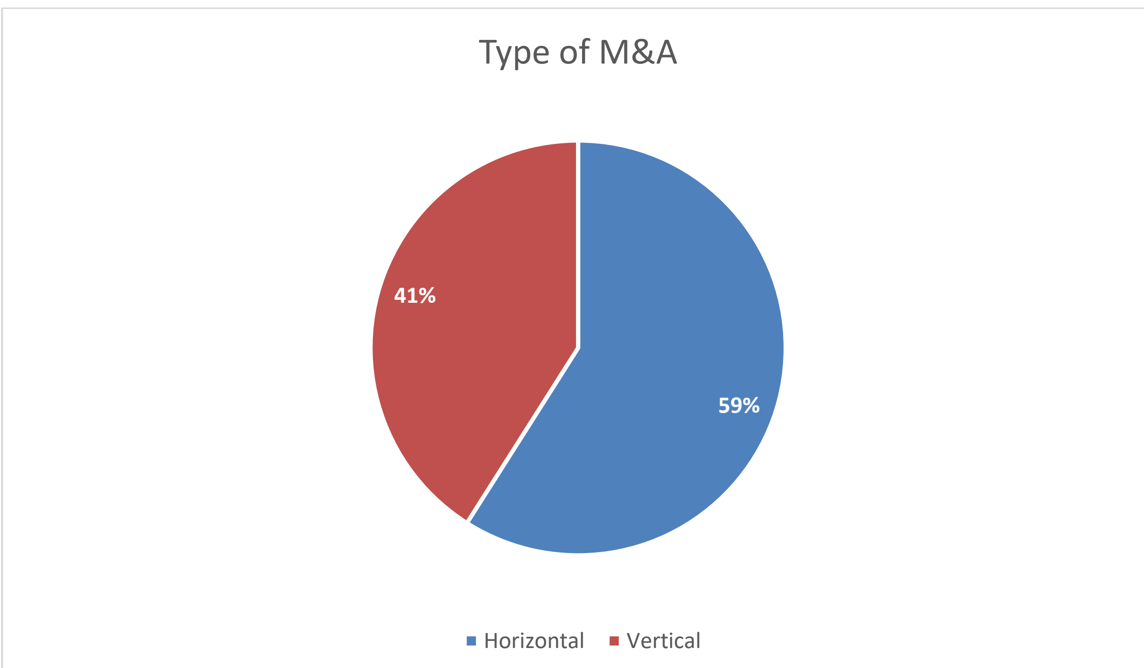

Fig. 2.1- Type of Integration

Out of the total deals 59% showed Horizontal integration and 41% of the M&As were of Vertical integration

Over the years trend has shifted from Horizontal mergers to Vertical mergers.

One of the reasons that the pharma industry was sustainable was that pharma invented something, and then it had a decade to plan the next thing. But now it is entering an era where the biopharma innovation machine is working at a pace that outstrips the life of the patent. For the first time, it is seeing technical obsolescence in pharma, where the product life cycle is shorter than the intellectual-property cycle.

External innovation is likely to continue to be a strategic focus for pharma companies that may face patent expiries, competition from generics and biosimilars, weak new drug pipelines, and growing technology needs

In today's times thus while prioritizing therapy areas for funding, pharmaceutical companies are weighing up several factors, with two of the most critical being level of unmet need and the company's scientific expertise in the particular therapy area.

Companies earlier opted for more Horizontal mergers because it helped them to-

- To increase profitability
- To decrease cost
- To develop efficiency
- To strengthen product lines or core businesses
- To enhance geographical coverage

But now the trend is shifting towards more and more vertical integrations because of the following reasons-

- To integrate recent advancements in the field
- To move towards more profitable areas
- To provide customers with better experience
- To combat pricing pressures
- To provide Value- based care
- To improve the efficiency and effectiveness of R&D
- To deal with patent losses, and increased promotion of generics and biosimilars

Trend of Horizontal and Vertical M&A overtime

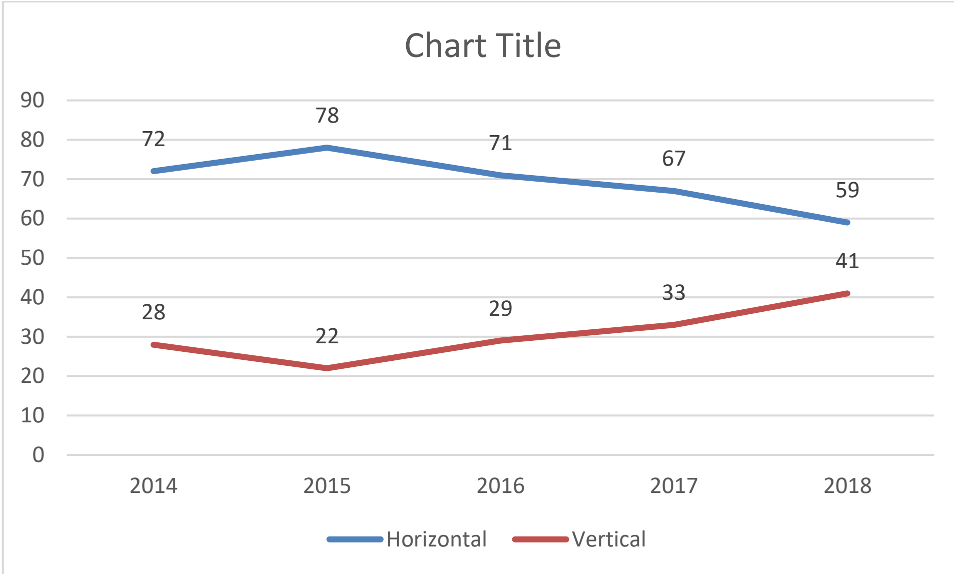

Fig 2.1 Trend of Horizontal & Vertical M&A overtime

The graph shows the decline of Horizontal mergers and an increase in Vertical mergers overtime.

What are the reasons for increase or decrease in the M&A activity in the USA healthcare industry?

Amid the previous decade, 'merger mania' has been a striking pattern in the USA Healthcare industry as a methodology to improve the coordination of administrations, to decrease costs, and to expand the capacity of suppliers to managerisk-based payment.

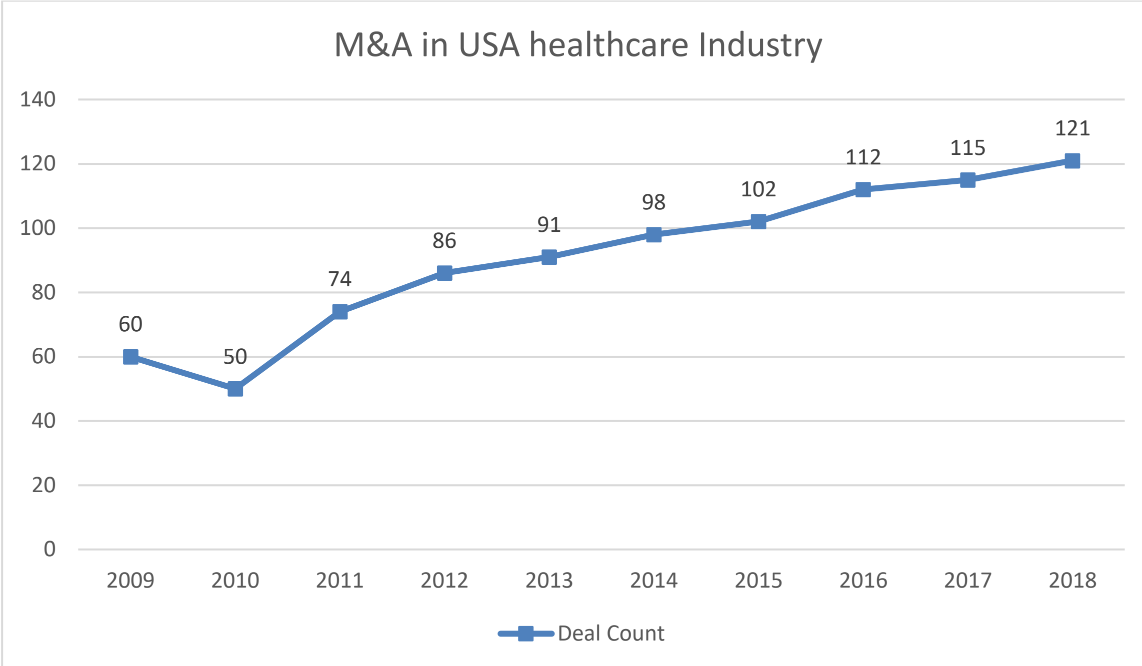

Fig. 2.2- M&A deals over a period

Source: Bloomberg

The above graph depicts the number of M&A happening in the healthcare industry in the USA over a period.

- There is a constant increase in M&A from 2009 with a slight dip seen in 2016
- In 2018, highest number of healthcare deals were seen in the past decades

Forecast of M&A trend

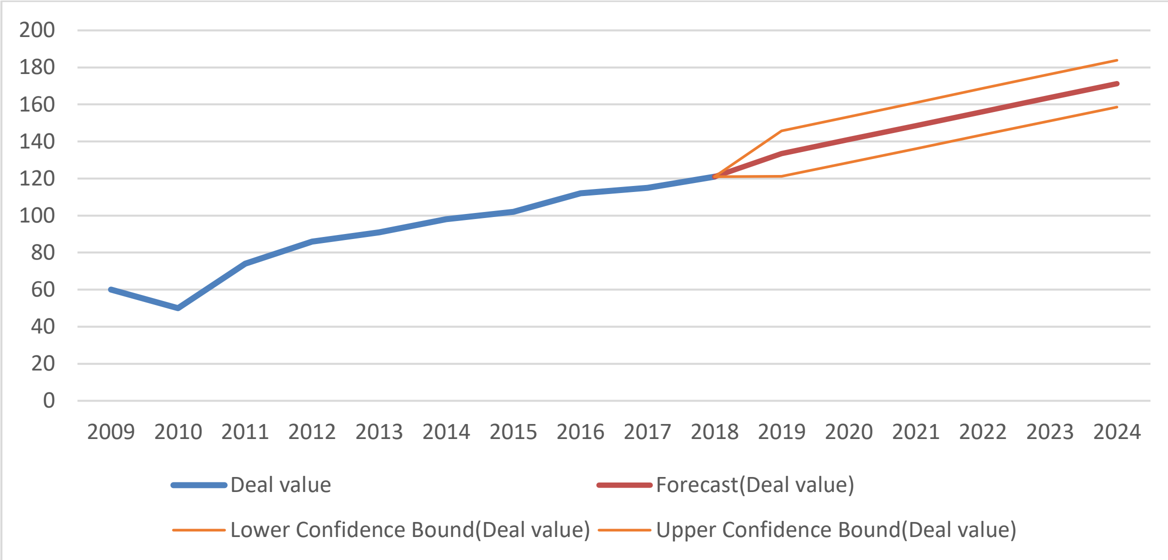

Fig 2.3 Prediction of M&A deal values in the USA healthcare industry

The graph predicts the future trend of the deal count in the USA healthcare industry which is set to increase till 2024.

There is a growing wave of M&A in the healthcare industry in the past decade for the following reasons-

- To boost profitability

- To secure their position against potential new entrants in the domain
  - Takeda will become the 1st Japanese company to reach the top 10 drug makers by revenue after its merger with Shire
  - Illumina Inc acquired Pacific Biosciences to retain its dominant position in the DNA sequencing space
  - GSK and Pfizer collaboration will help them together become global leaders in OTC products

- By reducing debt burden
  - Takeda Pharmaceutical will consider selling off up to $10B in assets to slash the debt from its planned purchase of Shire
  - Fred's Inc. concluded the sale of EntrustRx to CVS Health for $40M to pay down a significant portion of their debt

- To develop efficiency
  - Allows manufacturers to consolidate expertise and increase the possibility of new drug approvals and have more potential for future growth
    - Novartis and Endocyte will accelerate development of innovative radioligand technology for treating cancer
    - AstraZeneca and Daiichi Sankyo will work on an experimental treatment for breast cancer
  - Rising R&D expenses, pricing pressures and the growing cost of regulatory compliance: all result in the need for efficiency

- To combat pricing pressure
  - Pricing pressure on pharmaceutical segment are predicted to continue, driven by governments, patent losses, and increased promotion of generics and biosimilars
    - Abbvie'sblockbuster drug, Humira, is set to lose its patent protection
  - To deal with these pressures, some pharmaceutical companies are buying rivals to streamline marketing staff. Since 2018, companies are rearranging portfolios based on the coming pricing controls, and acquisitions are expected to be very strategic
    - Centene has acquired its direct competition Wellcare

- To strengthen current core therapy area
  - By leveraging existing capabilities, companies are also wanting to grow their product pipeline, as competition for the next innovative drug becomes fierce
  - Even while large pharmaceutical companies strive to stay focused on certain therapeutic areas, they look to their pipelines to create diversity within those area
    - Mega mergers like Bristol-Myers' and Celgene's could be considered to focus on a therapeutic area like oncology. The acquisition moved BMS from a low-growth and low-focus category to higher growth potential and greater focus, as Celgene boasted a robust oncology portfolio built in part by its own deal-making
    - Gilead would be expected to make primary deals in the core therapeutic areas where it currently focuses, particularly cell therapy and NASH
    - GW Pharmaceuticals, in 2019, would be focusing on expanding the scope of its lead cannabinoid product, Epidiolex
- Pharma companies partner with other health care stakeholders to access and use data to improve outcomes
- Pharma companies partner with, or acquire, digitally focused, data-centric companies to improve the efficiency and effectiveness of R&D

What are the trends of M&A activity in the USA healthcare industry in the recent years?

- A clear shift can be seen towards the oncology portfolio with approximately 32% of the total M&As amongst the USA healthcare industry between October 2018 to March 2019 were focused on oncology. The shift in focus to oncology is seen because cancer market is huge, and treatment has been improving. Also, Immuno-Oncology is expected to grow 142%—from $14B in 2019 to $34B in 2024
    - Contriving medicines for oncology is famously costly, so it pays to have genuine scale in the field
    - Recent big breakthroughs in the field and particularly in biotech like CAR-T therapies
    - Cancer is the second largest cause of death globally, therefore there is huge scale of opportunity in the domain

- There is an increase in the investments made from ex- USA (geographies other than USA) companies in the USA healthcare industry
    - Foreign investors are lured into $33 trillion USA healthcare industry because
        - of its aging population
        - a stark rise in the prevalence of chronic diseases
        - the robust development of new drugs and medical devices
        - Disruptive care delivery system
        - Lower corporate rates

- Growth of Mega Mergers

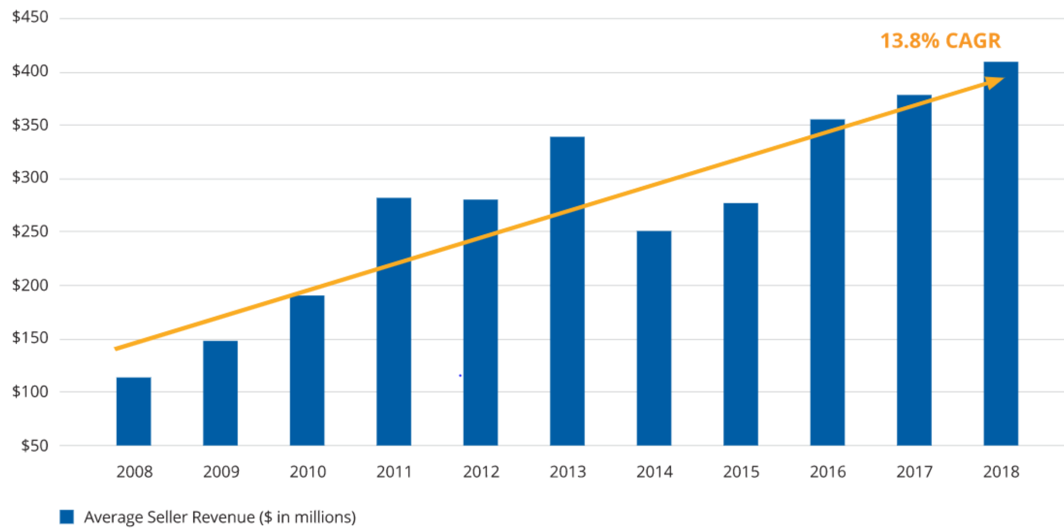

Fig. 2.4- Growth of Mega Mergers

Source: Evaluate Pharma

Due to Mega mergers, deal value has increased 76.5% in 2018 from. Mega mergers are increasing due to-

- Movement across state lines and multiple geographies to form or expand a regional system
    - Japan based Takeda acquired USA based Shire for $69B stating its rationale as expansion into USA
- Acquiring a smaller company having a block buster drug approval or in the pipeline
    - BMS has acquired Celgene in a $74B deal for its blockbuster drug Revlimid and its interesting pipeline
- To expand their business and compete with rivals
    - CVS, a retail chain has brought health insurer, Aetna in a $69B deal to attract more patients for their walk-in clinics and to compete with their rival Amazon, which will be stepping into healthcare domain

Strengths of the study

- This study is conducted every year by ZS Associates to track changes in the industry and help their clients stay ahead of the market
- Specific databases such as Bloomberg, Evaluate Pharma etc were used to track the trends supplemented by secondary research
- Trends were chalked out after elaborative discussions with healthcare industry leaders and experts
- An exhaustive research was carried out

Study Limitation

Sincethe study is conducted every year by ZS Associates, any new method to conduct the research was not explored

Comparison with other studies

Similar studies are carried out by various consultancy firms such as McKinsey, Deloitte, Ernst & Young etc.

- Deloitte predicts similar results in its study, "The state of the deal: M&A trends 2019" stating that M&A activity is showing no signs of slowing down.
- In a report published by EY, "Why the M&A market is expected to continue at elevated levels", it predicts that M&A will improve or remain stable over the next few months. Similar to the study conducted by ZS, it also predicts that companies will focus on existing portfolios

2.7 Conclusion

The study pointsout the importance of M&A in the USA healthcare industry, it also gives out the reasons why M&A in the USA healthcare sector is increasing. The study has thrown light on the upcoming trends in the industry such as-

- Over the years trend is shifting from Horizontal mergers to Vertical mergers
- Companies are reinvesting into their core therapy area rather than exploring new markets
- Big pharma companies are divesting from their supplementary business to focus on core therapy areas
- Growth of investments in Oncology portfolio
- Divergence into other geographical areas like China, Canada and Europe
- Growth of mega mergers

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